



CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 1

August 15, 1969

TRUSTEES APPROVE RECORD BUDGET

The Clemson Board of Trustees has approved a \$14,766,094 budget for 1969-70 academic programs of the University, compared with \$11,922,800 in the 1968-69 fiscal year. Increased allocations will support the University's steadily growing enrollment and will strengthen academic, research and public service programs.

President Edwards, in announcing adoption of the new budget, expressed appreciation to the South Carolina General Assembly and the State Budget and Control Board for providing funds to meet the most urgent needs for higher education and public service at Clemson and other state institutions.

In addition to support of the academic program, Clemson's budget pro-



TOWER HONORS FIRST PRESIDENT -- The faculty office tower (right) which adjoins D. W. Daniel Hall has been named in honor of Henry Aubrey Strode, Clemson's first President whose duties included supervision of the construction of the first campus buildings. Dr. Strode served as chief officer from July 6, 1890 until Jan. 31, 1893, relinquishing the office because of ill health almost five months prior to the opening of the University. He then served as Professor of Mathematics for a few years before his death in 1898.

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TRUSTEES APPROVE RECORD BUDGET (Continued)

vides for auxiliary enterprises such as food service and housing, research programs, agricultural extension, and various public service activities such as fertilizer inspection and analysis and livestock-poultry health. These bring the total budget for current operations to \$32,280,898 in 1969-70, compared with \$28,050,693 in 1968-69.

In other matters, the Board authorized:

--The Administration to expand the curriculums of the Graduate School to provide both professional and academic post-baccalaureate programs as may be required to insure the offering of new graduate studies and degrees to meet the changing needs of students concerned and industries and professions served by the University.

--The Administration to enter into a cooperative agreement with Central Wesleyan College to permit students of Central Wesleyan College to take courses at Clemson under such terms and conditions as may be mutually acceptable.

--The Development Council as presently constituted be dissolved, and that a Clemson University Development Council be constituted composed of such membership as may be deemed appropriate by the Administration, and whose functions shall be such as are determined by the Administration to promote and foster non-alumni giving for the greater support of the University.

--The Schools of Architecture, Education, and Industrial Management and Textile Science be designated colleges, effective Aug. 15, 1969, in recognition of the quality of their educational and professional accomplishments.

--The following departmental names be changed, effective July 1, 1969: Entomology and Zoology, to Entomology and Economic Zoology; Botany and Bacteriology, to Plant Pathology and Physiology.

--Adoption of a policy providing for a dinner meeting of representative students and the Board of Trustees at least once each year preceding a meeting of the Board of Trustees. The President of the University shall determine the student invitees, agenda, time and place of meeting.

--The date of the annual meeting of the Board of Visitors be changed from early Spring to Fall, preferably during the first half of November. Since the Board of Visitors has already conducted its visit for 1969, its next visit will be in November of 1970.

NECROLOGY

Dr. Allan Berne-Allen, Head of the Department of Chemical Engineering here from 1948 to 1955, died at Sarasota, Fla., April 15, 1969.

VICE PRESIDENT FOR EXECUTIVE AFFAIRS

Retired Air Force Maj. Gen. A. Wood Rigsby, Assistant to the University President for the past five years, has been appointed Vice President for Executive Affairs. He will continue his duties as University Counsel on legal matters and as Secretary to the Board of Trustees.

FACULTY MEMBER AWARDED FULBRIGHT LECTURESHIP, FELLOWSHIP

One member of the University faculty has received a Fulbright Lecture-ship and another a Fulbright Fellowship for the 1969-70 academic year. Dr. Richard J. Calhoun (Alumni Prof /English) will serve as a Fulbright Lecturer in American Literature at the University of Ljubljana and at the University of Sarajevo in Yugoslavia. John T. Acorn (Assoc Prof/Arch) will study at the Academy of Fine Arts in Berlin.

SIX NAMED HONORARY ALUMNI

Six Clemson University faculty and staff members have been named honorary alumni by the Alumni Association.

Faculty members named are Dr. Howard L. Hunter, Dean Emeritus of the College of Arts and Sciences and Professor Emeritus of Chemistry who retired July 1 after 41 years of service; Dr. Hugh H. McGarity, Professor Emeritus of Music, retired after 20 years service; and Prof. Harmon E. Broyles, retired after 12 years service on the Electrical Engineering faculty.

Staff members honored are Miss Beth Anderson, retired secretary in the Department of Agricultural Economics and Rural Sociology with 32 years of service; J. Cham Freeman, who served as auditor at The Clemson House for 12 years before retirement; and Mrs. Mary C. Stevenson of the Robert M. Cooper Library staff, retired after 31 years service.

NEW DEPARTMENT HEADS, DIRECTOR APPOINTED

The following academic appointments have been made:

Dr. Morris A. King, former Head of the Education Department and Director of Graduate Studies at The Citadel, has been named Head of the Department of Elementary and Secondary Education.

Dr. John W. Kenelly, Jr., former Clemson Associate Professor who has served as chairman of the Mathematics Department at Louisiana State University for the past year, has returned as Professor and Head of the Department of Mathematics.

Dr. John H. Butler, Director of Bands and Associate Professor of Music Education, is head of the Department of Music established recently in the College of Liberal Arts.

NEW DEPARTMENT HEADS, DIRECTOR APPOINTED Cont.

Dr. Rufus K. Guthrie, Professor of Biology at North Texas State University, will become Director of the newly-established Division of Biology within the College Agriculture and Biological Sciences on Sept. 1. In other appointments within the division, Dr. Averett S. Tombes, Associate Professor of Entomology and Zoology, is chairman of the Zoology section; and Dr. Malcolm J. B. Paynter, Assistant Professor of Botany and Bacteriology, is chairman of the Microbiology section.

LOYALTY FUND

The Clemson Loyalty Fund is dedicated to the overall capability of Clemson's across-the-board educational program. It sponsors undergraduate and graduate scholarships, faculty research and development, student activities, permanent endowment, a University contingency fund and the alumni service program.

The Loyalty Fund accepts gifts from Clemson alumni and from non-alumni friends of the University.

Over the past 13 years, more than \$1.5 million has been invested in Clemson through this medium. The largest gift of the current year is a bequest of \$72,250 from the late Walter H. Scott, a member of the Class of 1901.

Non-alumni faculty and staff who wish to invest in Clemson's educational capability through gifts to this fund may address their gifts to the Clemson Alumni Association, Clemson, S. C.

SUMMARY OF THE MINUTES OF THE FACULTY SENATE, APRIL 15, 1969

W. C. Capel presented a resolution commending the Board of Trustees, the President of the University, the Deans and other agencies of administration for the even-handedness and fairness of their decisions during the period past, and assuring them of the cooperation of the faculty in the difficult tasks that lie ahead in adjusting the University to new challenges and opportunities in the educational process. This resolution was adopted, with the provision that minor changes be made in its wording.

The following officers were elected for the 1969-1970 Faculty Senate: President, J. F. Pearce; Vice President, J. V. Reel; Secretary, Patricia Wannamaker; Members of the Committee on Committees: W. C. Godley (Agriculture and Biological Sciences), V. S. Hodges (Architecture), B. W. Morgan (Education), J. C. Mullins (Engineering), B. J. Todd (Industrial Management and Textile Science), J. L. Idol (Liberal Arts), J. F. Allen (Physical and Mathematical Sciences), A. S. Prevost (Nursing).

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 25, 1969

The Clemson University Research Faculty Council convened in May with the following officers: Chairman, S. F. Hulbert; Vice-Chairman, W. P. Byrd; Secretary, G. C. Kingsland.

Membership on the council for the year 1968-1969 consisted of the following representatives: College of Agriculture and Biological Sciences: W. P. Byrd, R. C. Fox, J. W. Hubbard, J. J. Janzen, M. W. Jutras, G. C. Kingsland, A. S. Tombes, L. O. Van Blaricom; College of Arts and Sciences: J. C. Fanning, H. W. Graben, E. M. Lander; College of Engineering: W. B. Barlage, H. R. Bungay, S. F. Hulbert; School of Industrial Management and Textile Science: R. H. Barker, J. J. Porter; School of Architecture: L. H. Brown.

R. C. Fox was appointed to serve as liaison between the Research Faculty Council and the Faculty Senate for 1968-1969 Academic Year.

Committee assignments were made for the year: Policy: J. J. Porter (Chairman), J. J. Janzen, and L. H. Brown; Personnel Relations: A. S. Tombes (Chairman), R. H. Barker, H. W. Graben, J. W. Hubbard, and L. O. Van Blaricom; Ad Hoc Committee to study unification of the Faculty Senate and Research Faculty Council: R. C. Fox (Chairman), W. P. Byrd, W. B. Barlage, and E. M. Lander.

The following were referred to the Policy Committee for study: (1) the status of professional research personnel affiliated with, but not directly employed by, the University, (2) the present status of auxiliary services available to the research faculty and (3) the current status of, and possible alternative to, the non-thesis option for candidates for graduate degrees.

At the June meeting the council adopted a resolution asking for clarification of University policy concerning faculty members appearing before regulatory commissions.

In regards to the administration policy statement concerning the conduct of students and employees of Clemson University, the council supported the statement that there should be no physical interference with the functioning of the University.

At the July meeting the council passed a resolution noting a possible conflict between the University policy on academic freedom and University policy concerning faculty members appearing before regulatory commissions.

H. R. Bungay (Chairman), J. C. Fanning and M. W. Jutras were appointed to an Ad Hoc Committee to study and report on a proposed brochure for new members of the research faculty.

Council noted that no action has been taken to provide for open dormitories for graduate students during intersessions.

At the August meeting W. P. Byrd reported that Dean F. I. Brownley has offered to publish and distribute the brochure for research faculty that the council is preparing.

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 25, 1969 (continued)

At the September meeting the council was informed that the directive regarding faculty members appearing before regulatory commission had been rescinded. An Ad Hoc Committee (E. M. Lander, Chairman; W. P. Byrd, R. C. Fox, and L. O. Van Blaricom) was appointed to study and evaluate the prerequisites and criteria considered for faculty advancement to the rank of full professor.

The council convened two October sessions. The council recommended to the Graduate Council that the Master of Science and Doctor of Philosophy designations be reserved for degrees that require a thesis.

The council adopted a resolution that the complete minutes be published in the Newsletter.

The council discussed the administration proposal concerning the housing of graduate students in the Clemson House. The council approved a report from an Ad Hoc Committee (W. P. Byrd, Chairman; R. H. Barker and E. M. Lander) recommending that a dormitory be designated as a graduate student dormitory for year-round occupancy.

An Ad Hoc Committee (W. P. Byrd, Chairman; H. W. Graben, and J. W. Hubbard) was appointed to study the University leave policy, and suggest any changes which would improve on the current policy.

Other items discussed included (a) facilities for central chemical storage, (b) review of the statement on academic freedom in the Faculty Manual, and its relation to the Research Faculty, (c) consulting work by faculty members, and (d) sabbatical leave policy.

At the November meeting of the council a resolution was passed recommending that the Graduate Council consider the advisability of publishing the time, date, place and title of all Ph.D. final oral exams.

A report from the Personnel Relations Committee concluded that there is no University policy which protects a graduate student's major advisor from being removed from that position. It was the feeling of the council that the guideline to be followed in all cases should be based on established standards of the scientific community.

At the December meeting of the council a report from the Personnel Relations Committee indicated that almost all problems involving graduate students and their faculty advisors should be handled at the department level.

A discussion occurred concerning the proper authority for signing M.S. and Ph.D. theses. The general consensus was that only the major committee chairman, who has directly supervised the research project, should certify the thesis.

Several questions were discussed concerning the responsibilities of the University and research faculty members for injuries incurred by employees, and

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 25, 1969 (continued)

accidents occurring during and after regular working hours. There was also some question concerning the feasibility of defining specific time limits for official duties of research faculty members.

At the January meeting of the council the major item of business involved consideration of the problem of housing for graduate students during intersession and vacation periods. The chairman asked W. P. Byrd and R. C. Fox to formulate a statement as to the council's position on graduate student housing.

At the February meeting the Personnel Relations Committee reported that there is no present need for a change in the statement of academic freedom (January 1966 Manual for Faculty Members).

H. W. Graben was appointed to the University Parking Committee to represent the research faculty.

An Ad Hoc Committee was appointed (H. R. Bungay, Chairman; H. W. Graben, and J. W. Hubbard) to review admission regulations and procedures for graduate students with the Dean of the Graduate School.

At the March meeting the council adopted the following resolution concerning the solution of the housing of graduate students during vacation and intersession periods. "The Research Faculty Council commends the University Administration for the steps taken to solve the problem of graduate student housing on a continuous-occupancy basis. The memorandum from Dean Brownley of March 10, 1969 clarifies some of the points of concern by the council as to the conditions of occupancy. The council's immediate concern (called to the attention of the Administration in the 1967-68 academic year) for a satisfactory arrangement for occupancy of rooms during intersession or vacation periods has been satisfied. However, the council is obliged to point out that the present demand for rooms in the dormitory by graduate students (approx. 65) is not indicative of the future needs, especially, with the arrangement for continuous-occupancy."

The Research Faculty Council was informed that the Graduate Council had rejected its recommendation that the M.S. designation be reserved for those degrees requiring a thesis. Action on publication of information on Ph.D. final oral examinations was postponed.

The Ad Hoc Committee report on Clemson's annual leave policy was discussed and adopted by unanimous vote. The council recommended the following changes in Clemson University's Leave Policy for Faculty.

1. Faculty members (all professional employees) on 12-month appointments shall accrue annual leave with pay at the rate of 22 working days for each 12 months' employment.

2. A maximum of 22 days of accrued annual leave may be carried forward at the beginning of each calendar year, and no employee can accumulate more than 30 working days of leave allowance.

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 25, 1969 (continued)

3. A faculty member terminated without prejudice will receive pay for accrued leave not taken, but not to exceed one calendar month's pay.

4. With the approval of the dean or academic head concerned, annual leave may be accrued for the purpose of professional improvement up to three calendar months (66 working days). This leave may be taken to pursue an approved program of study, research, or travel and shall be granted only when such leave will not interfere with the regular performance of duties of the faculty members. Requests for leave must be accompanied by a record of leave accrual, approved annually by the applicant's administrative head, and a proposed plan of study, research, or travel. This leave may not be used while employed outside the University.

5. Sick leave may also be used in the event of serious illness or death of a member of his immediate family; limited to three days per case and six days during a calendar year. The immediate family is defined as spouse, children, parents, brothers/sisters, or other relative if this relative is sharing his household. A written statement by the faculty member must be filed with the request for leave giving the particulars justifying this use of sick leave.

A report from an Ad Hoc Committee concerning Graduate School admission procedures was presented and discussed. The committee report concluded that current procedures are generally satisfactory.

New members, whose term will expire in 1972, were elected to the Research Faculty Council in April. College of Agriculture and Biological Sciences: R. F. Borgman, J. R. Haun, W. H. D. McGregor; School of Industrial Management and Textile Science: J. L. Lundberg.

Election of officers was held at the April meeting of the Council for the year 1969-1970. The new officers are: Chairman, G. C. Kingsland; Vice-Chairman, A. S. Tombes; and Secretary, M. W. Jutras.

FACULTY BASIC RESEARCH GRANTS

Applications are now being received by the Faculty Basic Research Committee for grants to faculty members to support research. Due to budgetary limitations the Committee has utilized funds for support in areas where other grants are not available, and also as "starter" grants to assist faculty members to initiate research which may later be funded by an off-campus agency. A grant proposal should include the title of the proposed research, the name of the applicant, the objective of the research, a brief description of the procedures anticipated and a realistic budget. Applications should be sent to the Dean of the Graduate School, and must have the approval of the Department Head. Grants to be funded this year must be submitted by September 20, 1969.

MINUTES OF THE APRIL RESEARCH FACULTY COUNCIL MEETING

The Research Faculty Council convened its April meeting at 4:00 p.m., April 15, 1969, in Room 28, Tillman Hall.

The Council wishes to remind the research faculty of the annual research faculty meeting at 4:00 p.m., Friday, April 25, 1969, in the Earle Hall Auditorium.

Chairman Hulbert acknowledged the newly elected council members as follows: Agriculture and Biological Sciences: W. H. McGregor (Forestry), R. F. Borgman (Food Science and Biochemistry), J. R. Haun (Horticulture); Industrial Management and Textile Science: J. L. Lundberg (Textile Chemistry).

New officers elected for the 1969-70 Council Year are: G. C. Kingsland, Chairman; A. S. Tombes, Vice Chairman; M. W. Jutras, Secretary.

The Council expressed appreciation to the 1968-69 Executive Committee (S. F. Hulbert, W. P. Byrd, and G. C. Kingsland) for their efforts in conducting the affairs of the Council.

MINUTES OF THE MAY RESEARCH FACULTY COUNCIL MEETING

The Research Faculty Council convened its May meeting at 4:00 p.m., May 20, 1969, in Room 28, Tillman Hall.

Chairman Kingsland announced the appointments of committee chairmen for 1969-70 as follows: Personnel Relations, H. R. Bungay; Policy, W. H. McGregor; Research Manual (ad hoc), J. J. Janzen. The chairmen were instructed to personally appoint additional members to their committees.

Dr. Kingsland reported that the new annual leave suggestion, to bring Clemson's leave policy for 12-month appointees into line with that of other institutions, was rejected by the President's Advisory Committee. The Council requested the Policy Committee to review the rejection and to submit a rebuttal.

The ad hoc Research Brochure Committee was instructed to review the need for a faculty brochure and to consider what the brochure should contain if a need exists. The ad hoc committee was also requested to review the Constitution and By-Laws of the Research Faculty for recommendations regarding revisions.

The Council voted in favor of retaining present attendance requirements at May graduation exercises. The Council indicated an eagerness to discuss with appropriate parties possible means of shortening the graduation exercises.

The Personnel Relations Committee was assigned the responsibility of reviewing the feasibility and the pros and cons of tuition deferment for children of Clemson employees attending the University.

MINUTES OF THE JUNE RESEARCH COUNCIL MEETING

The Research Council convened its June meeting at 4:00 p.m., June 17, 1969, in Room 28, Tillman Hall.

J. J. Janzen, Chairman of the ad hoc Research Manual Committee announced appointment of the following Council members to the committee: R. H. Barker, W. B. Barlage, J. C. Fanning. Appointed to the Policy Committee by Policy Chairman W. H. McGregor were L. H. Brown, J. W. Hubbard, J. L. Lundberg.

H. R. Bungay, Chairman of the Personnel Relations Committee, led a discussion regarding tuition waiver for employees' children attending Clemson University. Numerous complications arising from such a tuition waiver resulted in shelving of the proposal by the Council.

The Personnel Relations Committee was asked to review available avenues for the handling of grievances.

The Council went on record regarding persons affiliated with the University but not directly employed by the University, that once elected to the Research Faculty, these persons have the full rights and privileges of any member.

MINUTES OF THE CLEMSON UNIVERSITY RESEARCH FACULTY MEETING, APRIL 25, 1969

Dean Victor Hurst, Vice-President for Academic Affairs, called the annual meeting of the Research Faculty to order at 4:00 p.m. in Earle Hall auditorium. Dr. Hurst expressed appreciation to the retiring officers of the Research Council and stressed the importance of the Council in University affairs.

Dr. Hurst then introduced President Edwards who declared his appreciation to the Research Faculty and to the Research Council for their support, and stated that he anticipated another fruitful year in 1969-70.

President Edwards then commented on the following:

a. He expressed the hope that the state legislature would provide sufficient funds both to permit salary increases and to continue the current rate of progress in University programs.

b. The President discussed higher education in South Carolina and the various proposals being considered, and indicated the desire for a better system of funding for building programs, such as suggested in the Moody Report.

c. President Edwards said he hoped that communications between students and the administration were satisfactory, and he provided information on the University's relationships and discussions with black students and other student groups.

Dr. Hurst then introduced Dr. S. F. Hulbert, Chairman of the Research Council who gave the highlights of the Council's 1968-69 activities.

FACULTY PROMOTIONS ANNOUNCED FOR 1969-1970

Thirty-five members of the teaching and research faculties received promotions in rank, effective May 15, 1969. Of these thirteen associate professors were promoted to professors, sixteen assistant professors became associate professors, and six instructors became assistant professors.

New full professors are Dr. James E. Halpin, botany and bacteriology; Dr. W. P. Williams, food science and biochemistry; Dr. William H. D. McGregor, forestry; Dr. Frederick J. Lindstrom, chemistry; Dr. Malcolm J. Skove and Dr. E. P. Stillwell, Jr., physics; Dr. Lyle C. Wilcox, electrical engineering; Dr. Nelson R. Bauld, Jr., engineering mechanics; Dr. Tah-Teh Yang, mechanical engineering; Dr. F. C. Alley and Dr. Richard C. Harshman, chemical engineering; and Dr. Boyd J. Todd, industrial management and mathematics. Dr. Samuel M. Willis, director of the Clemson University at Sumter campus, was promoted to professor of industrial management.

Promoted to associate professor are Dr. Joseph F. Dickey, dairy science; Dr. Bobby J. Skelton, horticulture; Kenneth Russo, architecture; Dr. Villard S. Griffin, Jr., geology; Dr. Philip R. Burt and Dr. John L. Ging, physics; Dr. John L. Idol, Jr. and Dr. Norman Olsen, Jr., English; Dr. Joseph L. von Rosenberg, Jr., chemistry; Dr. John D. Davenport, psychology; Dr. Rudolf E. Elling, civil engineering; Dr. Paul B. Zielinski, engineering mechanics; Dr. Carl S. Rudisill, mechanical engineering; Dr. J. C. Mullins, chemical engineering; Dr. Henry G. Lefort, ceramic engineering; and Dr. Bobby E. Gilliland, electrical engineering.

Achieving the rank of assistant professor are Dr. Richard F. Nash, Jr., entomology and zoology; John A. Gilreath, physics; Robert L. Cross, English; Jacques B. Macy, French; James R. Sellers, recreation and park administration; and Dr. H. H. Ulbrich, economics.

OFFICE OF UNIVERSITY RESEARCH

The primary purpose of this office is to assist in developing the full research potential of the institution. To that end, information on the various agencies which support research will be available and every effort will be made to keep this material current.

Faculty members who are contemplating submitting grant proposals are encouraged to discuss proposals with the Office of Research prior to putting them in final form. (This is especially applicable to the individual who does not have experience in writing proposals, and who is not familiar with the policies of the grant agencies.)

A third function of the Office of University Research will consist of periodic dissemination of information concerning research. This may be done in the Newsletter or by memoranda to those thought to be most intimately concerned.

Faculty and staff are encouraged to avail themselves of the services provided by the Office of University Research so that this office can function as intended.

Director of the Office of University Research is Dr. A. E. Schwartz, the Assistant Director is Dr. R. W. Henningson, whose offices are in Tillman Hall but will soon move to Martin Hall.

FACULTY SENATE ROSTER, 1969-1970College of Agriculture and Biological Sciences

W. C. Godley and J. R. Warner (1970); J. F. Dickey, D. L. Handlin, and E. B. Rogers (1971); E. T. Sims, Jr. (1972)

School of Architecture

V. S. Hodges (1970); R. E. Knowland and K. J. Russo (1971); E. L. Falk (1972)

School of Education

A. K. Jensen (1970); H. E. Morgan, Jr. and Barbara Morgan (1971); Marvin O. Keith (1972)

College of Engineering

F. C. Alley and J. N. Thurston (1970); H. W. Busching, J. C. Mullins, and M. K. Richardson (1971); A. F. Hammond, J. K. Johnson, and F. A. Young (1972)

School of Industrial Management and Textile Science

D. W. Lyons (1970); J. F. Pearce and B. R. Skelton (1971); B. J. Todd and G. D. Riggs (1972)

College of Liberal Arts

W. C. Capel, Rameth Owens, and J. V. Reel (1970); R. J. Calhoun, J. L. Idol, Jr., and R. T. Sorrells (1971); H. D. Adams, A. J. Fear, Corinne Sawyer, and Patricia Wannamaker (1972)

School of Nursing

Dorothy H. Davenport (1970); Aileen S. Prevost (1972)

College of Physical and Mathematical Sciences

P. K. Birkhead and L. D. Huff (1970); J. F. Allen, J. V. Brawley, Jr., W. A. Gettys, and B. J. Prochaska (1971); F. J. Keller, D. R. LaTorre, and G. B. Savitsky (1972)

SCHEDULE FOR COMPUTER CENTER

The computer center will keep the same hours as the library. It will be open 7:45 a.m. to 11:00 p.m. Monday through Friday, 8:00 a.m. to 6:00 p.m. Saturday, 2:00 p.m. to 11:00 p.m. Sunday.

COLLEGE OF ENGINEERING--CONTINUING EDUCATION (OIMR)

Programs of continuing engineering education which have been conducted since the last Clemson Newsletter (May 1) include the following:

May 2. Seminar on "ICES - STRUDL," a computer method for structural analysis and design. Sponsored by Civil Engineering Department. W. A. Welch, Jr. (CE) moderator.

May 12-14. Seminar-workshop on "Computer Simulation of Biological Processes." Sponsored by Bioengineering Program. H. R. Bungay (ESE) moderator.

May 14-17. Short school for Water and Wastewater Plant Operators. Sponsored by S. C. Water and Pollution Control Association and Department of Environmental Systems Engineering. Jon C. Dyer (ESE) and R. A. Banister (OIMR) were coordinators.

June 1-13. Third Summer Institute on "Controls and Computations in Power Systems." Sponsored by Electrical Engineering Department. Professors Thurston, Wolla, and Gilchrist (EE) composed the institute faculty.

June 8-21. JESSI. Thirty-one high school students representing nine states participated in the science-engineering institute. R. A. Banister (OIMR) Director.

June 16-23. Workshop on "Mathematical Modeling and Computer Analysis of Water Distribution Systems." Sponsored by Departments of Environmental Systems Engineering and Electrical Engineering, and Engineering-Science, Inc., Arcadia, California. Instructors were Professors Gilliland (EE) and Dysart (ESE).

July 14-15. Seminar on "Equipment Selection and Economics." Sponsored by Chemical Engineering Department. Instructors included Professors Hall, Alley, and Harshman (ChE).

ADMINISTRATION

President Edwards has been named Vice Chairman of the Southern Regional Education Board. His appointment which begins Sept. 15 was announced at SREB's annual business meeting at Miami Beach, Fla. He succeeds University of North Carolina President William Friday. Tennessee Governor Buford Ellington was elected Chairman of the board. Dr. Edwards will serve on the board's Executive Committee and will be Chairman of the Educational Plans and Policies Advisory Committee which develops long-range plans for SREB. He also will work closely with Gov. Ellington in setting board policy, and will advise and consult with SREB Director Winfred L. Godwin on conduct of the board's programs.

President Edwards also made the main address at graduation ceremonies held at Jacksonville (Ala.) State University on Aug. 1.

AGRICULTURAL ECONOMICS

B. L. Dillman (Asst Prof) and J. C. Hite (Asst Prof) attended the annual meeting of the Southeastern Section, Regional Science Association, at the University of North Carolina at Chapel Hill, Apr. 18-19.

J. M. Stepp (Alumni Prof) and J. C. Hite (Asst Prof) attended the short course on Air and Water Pollution at Virginia Polytechnic Institute, Blacksburg, on Apr. 27-29. Prof. Stepp presented a paper for H. H. Macaulay (Alumni Prof-Econ) who was unable to attend.

ANIMAL SCIENCE

James R. Hill, Jr. (Assoc Prof) and Carlos F. Lam, Jr. (Res Asst) attended the 61st Annual Meeting of the American Society of Animal Science at Purdue University, West Lafayette, Ind., Aug. 3-6. Dr. Hill presented a paper, "Concurrent Synchronization of Estrus and Multiple Ovulations in Beef Heifers," and Mr. Lam presented a paper, "Three Techniques for Estimating Milk Production of Beef Cows."

ARCHITECTURE

"A Corporation Collects" will be the opening show in the Lee Hall Gallery from August 17 until September 7.

Harlan E. McClure (Dean) has been elected president of the National Architectural Accrediting Board. The past three years he has served as the national secretary.

Joseph L. Young (Prof) has been elected as secretary-treasurer of the South Carolina Chapter of the American Institute of Architects.

John Acorn (Assoc Prof) has been awarded a Fulbright Fellowship to study bronze casting at the German Academy of Art in West Berlin.

CHEMICAL ENGINEERING

The Monsanto Company announced an unrestricted grant of \$1000 to the Chemical Engineering Department for 1969-70.

W. B. Barlage (Assoc Prof) attended a sesquicentennial symposium presented by the University of Virginia on Liquid State Theory, Apr. 10.

D. F. Bruley (Assoc Prof) presented a paper at the 157th National Meeting of ACS, Apr. 16, in Minneapolis, Minn. - "Hybrid Simulation-Oxygen Transport In the Microcirculation" with M. H. Knisely. Dr. Bruley has also received third year NIH Continuation Grant (\$25,142) for studies on "Oxygen Transport In The Microcirculation."

CHEMICAL ENGINEERING (continued)

S. S. Melsheimer (Asst Prof) attended the Professor's Workshop on Industrial Monomer and Polymer Engineering sponsored by the Midland Section of the American Institute of Chemical Engineers, Midland, Mich., May 2-3.

D. F. Bruley (Assoc Prof) published, "Process Dynamics of Distributed Parameter Systems in Laminar Flow," AIChE Journal, 15, 220 March 1969 with R. R. Stewart. Dr. Bruley also published, "Analog Simulation of A Two-Capacity Liquid-level Process Under Three-Mode Control," Applications-Analog/Hybrid Computer Educational Users Group, Vol IV, No. 1, March 1969 with Ronald Glass.

CHEMISTRY

Two members of the department presented papers at the Sixth International Symposium on the Chemistry of Natural Products (Steroids and Terpenes), Mexico City, Apr. 21-25:

J. W. Huffman (Prof) and R. R. Sobti (Post-Doctoral Assoc), "A Synthetic Approach to Veratramine."

A. R. Pinder (Prof), H. C. Odom (Grad Stu), and H. M. McGuire (Grad Stu), "Recent Synthetic Studies in the Eremophilane Sesquiterpene Group."

Several faculty members and students presented papers at the Annual Meeting of the South Carolina Academy of Science, Clemson University, Apr. 25-26:

R. B. Huff (Grad Stu) and J. C. Fanning (Assoc Prof), "Reactions of Hydrogen Chloride Gas with Solid 1-10-Phenanthroline and 2,2'-Bipyridine Coordination Compounds."

J. C. Fanning (Assoc Prof) and R. F. Bock, Jr. (Stu), "Reactions of Hydrogen Sulfide Gas with some Cobalt (III) Complexes."

F. B. Brown (Assoc Prof) and C. P. Brown (Grad Stu), "The Barrier to Inversion in Dimethyl Amine as Determined from the Infrared Spectrum of Dimethyl-d₆ Amine and Perdeutrodimethyl Amine."

N. P. Marullo (Assoc Prof) and E. H. Wagener (Former Grad Stu), "Mechanism of Isomerization of Compounds Containing the Carbon-Nitrogen Double Bond."

N. P. Marullo (Assoc Prof), A. Bodine (Stu), and Asha Sobti (Post-doctoral Assoc), "7-Substituted 2,3-Diazabicyclo 2.2.1 Heptanes."

F. G. Cowherd (Grad Stu) and J. L. von Rosenberg, Jr. (Assoc Prof), "Mechanism of Fe(CO)₅ Catalysed 1,3-Hydrogen Shifts."

P. A. Spanninger (Grad Stu) and J. L. von Rosenberg, Jr. (Assoc Prof), "A Novel Preparation of (-)-a-Pinene from (-)-b-Pinene."

CHEMISTRY (continued)

H. C. Odom (Grad Stu) and A. R. Pinder (Prof), "Synthesis of Nootkatone, the Principal Flavor Component of the Grapefruit."

J. W. Huffman (Prof) and J. F. Cope (Grad Stu), "The Synthesis and Reactions of 2-Methyl Chloroferrocene."

J. W. Huffman (Prof) and C. E. Opliger (Grad Stu), "Synthetic Routes to the Proaporphines."

G. F. Adams (Grad Stu), "Theory of Second-Order Exchange Perturbation Calculations."

M. B. Bishop (Asst Prof) presided over the biochemistry section.

Research papers presented by undergraduate students at the 1969 Southeastern Sectional Conference of Undergraduate Student Chemists, Tuscaloosa, Ala., Apr. 18-19 are:

James M. Davis (Stu) and J. C. Fanning (Assoc Prof), "Cobalt Complexes of Selenium and Tellurium Diethyldithiocarbamate."

Robert F. Bock (Stu) and J. C. Fanning (Assoc Prof), "Reactions of Hydrogen Sulfide Gas with Some Cobalt (III) Complexes."

James M. Davis (Stu) was chairman of a technical session on physical chemistry.

ECONOMICS

W. C. Whitten, Jr. (Prof) was appointed to the Steering Committee seeking to form a State Council on Economic Education which met Mar. 27. Dr. Whitten also attended an Institute on the Economics of Public Utilities at Michigan State University, Lansing, Mich. on Mar. 25 and 26.

Hugh Macaulay (Alumni Prof) has published "Economic Factors in Water Pollution Control: Part II" in the University of South Carolina Business and Economic Review, May 1969. He was the luncheon speaker at the Eighteenth Southern Water Resources and Pollution Control Conference held in Raleigh on Apr. 9 and 10, speaking on "Economic Measures for Dealing with Pollution," which will be published in the conference Proceedings. His paper on "The Use of Subsidies for Waste Abatement" was delivered at VPI in April and will be published in the Proceedings of the conference on Economics of Air and Water Pollution.

W. C. Whitten, Jr. (Prof) published a research paper in the June 1969 issue of Essays In Economics published by the University of South Carolina's University Press and entitled "Evolution of Antebellum Economic Thought." In his essay Dr. Whitten presented a sympathetic, but critical evaluation of Thomas Cooper's economic doctrines and influence.

ELEMENTARY AND SECONDARY EDUCATION

L. Lawson Byrd (Asst Prof) served as Chairman for the Southern Association of Colleges and Schools Accreditation Committee, evaluating the Whittaker and Mellichamp Elementary Schools in Orangeburg during the week of Apr. 1. Dr. Byrd also served on the Southern Association team evaluating the Washington High School, Greenville, during the week of Apr. 14.

A workshop in remedial reading was held Apr. 18 for public school teachers of reading. Gordon Gray (Assoc Prof) presented a paper on "Setting Up a Remedial Reading Program." Barbara Morgan (Asst Prof) followed with a paper on "Methods and Materials for Remedial Reading." Teachers from three counties were present.

ENGINEERING MECHANICS

A. G. Law (Assoc Prof) served as a discussion leader on Water Well Hydraulics at the Research Conference on Ground Water Hydrology sponsored by the American Water Resources Association. The meeting was held in Milwaukee, Wis. from June 16-20.

Paul B. Zielinski (Assoc Prof) attended a course in "Stream and Estuarine Analysis" at Manhattan College, June 2 to 6, sponsored by Manhattan College and FWPCA. Dr. Zielinski also presented a paper on the "Applications of Dispersion Theories in Water Resources" to the Water Resources Technical Group of the South Carolina Section of ASCE at their summer meeting, July 26, at Myrtle Beach.

A. G. Law (Assoc Prof) attended the International Seminar for Hydrology Professors at the University of Illinois, July 14-25. The Seminar was sponsored by NSF and UNESCO and was attended by 135 people representing 21 countries. Dr. Law has also been named to the Committee on Relations with Professional and Technical Societies of the Civil Engineering Division, American Society for Engineering Education.

ENGLISH

Robert T. Sorrells (Asst Prof) has a short story, "Speech After Long Silence," published in the Southern Humanities Review, vol. 3, No. 1, Winter, 1968.

H. Barry Hannah (Asst Prof) has been notified that he is the 1969 winner of the \$500 Henry Bellamann Foundation Award for promising writing by a native of Mississippi. Mr. Hannah's short stories have appeared in several periodicals and his first novel will shortly go to the publisher.

Harriet R. Holman (Assoc Prof) had an article, "When Riley Won the Palm," published in the June issue of Indiana Magazine of History (vol. 65).

Kenneth C. Burrow (Grad Asst) has an article, "The Alexandro--Villuppo Subplot in the Structural Integrity of The Spanish Tragedy, appearing in the fall issue of Renaissance Papers.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Hd) was Chairman for a three-day workshop on Applications of Systems Analysis in Sanitary Engineering, Myrtle Beach, June 25-27. The workshop was sponsored by the American Association of Professors in Sanitary Engineering and the College of Engineering, Clemson University. Five corporations and 38 universities were represented at the workshop. Attendees came from 22 states, as well as Brazil, Canada, and Puerto Rico. At this workshop B. C. Dysart (Asst Prof) presented a paper entitled "The Use of Dynamic Programming in Water Quality Planning" and J. O. Bryant (Ph.D. candidate) presented a paper on "Transient and Frequency Response Analysis of Water and Wastewater Treatment Systems."

J. F. Andrews (Hd) presented a paper entitled "Dynamic Modeling and Simulation of Biological Processes" at A Conference on Applications of Continuous System Simulation Languages, San Francisco, Calif., June 30.

J. F. Andrews (Hd) and B. H. Kornegay (Asst Prof, Ga. Tech.) presented a paper on "Application of Continuous Culture Theory to the Trickling Filter Process" at the 24th Annual Purdue Industrial Waste Conference, Lafayette, Ind., May 7.

A. R. Abernathy (Assoc Prof) was program chairman and presiding officer for a seminar on the Teaching of Biology for Sanitary Engineers at the Purdue Industrial Wastes Conference, Lafayette, Ind., May 5. Dr. Abernathy also attended the Eutrophication-Biostimulation Workshop in Berkeley, Calif., June 19-21. The workshop was sponsored by the National Eutrophication Research Program of the Federal Water Pollution Control Administration and by the University of California, Berkeley.

B. C. Dysart (Asst Prof) presented a paper entitled "An Economic Approach to Regional Industrial Waste Management" at the 24th Purdue University Industrial Waste Conference, Lafayette, Ind., May 7. Also, Dr. Dysart was a representative of Clemson University at the annual meeting of the Universities Council on Water Resources held in Reno, Nev., June 30-July 2.

Jon C. Dyer (Assoc Dir, Cont Educ) presented a video tape entitled "Operator Training Opportunities in the United States" at the 89th Annual Conference of the American Water Works Association, San Diego, Calif., May 21.

John H. Austin (Prof) represented Clemson University at the Argonne Universities Association Conference on "Universities, National Laboratories and Man's Environment," Chicago, Ill., July 28-30. Leading educators, government and industrial officials were present at the conference to discuss a proposed Socio-Technological Research Organization.

B. C. Dysart (Asst Prof) has been awarded a \$54,502 grant by the Office of Water Resources Research. The two-year project is entitled "Use of Advanced Water Resources Planning Techniques in the Development of Regional Water Management Programs."

ENVIRONMENTAL SYSTEMS ENGINEERING (continued)

W. M. McLellon (Assoc Prof) presented a paper entitled, "The South Carolina Certification Law" at the 40th Annual Meeting, Southeastern Section, American Water Works Association, Greenville, Apr. 21.

The Environmental Systems Engineering department has received a \$13,926 grant from the Federal Water Pollution Control Administration to conduct a three-day workshop on Educational Systems for Operators of Water Pollution Control Facilities. The workshop will be held in Atlanta on Nov. 3, 4, and 5. Invitations to attend the workshop are being sent to training officers in each state as well as to other governmental, industrial, and private organizations. J. H. Austin (Prof) will be the director of the workshop.

FOOD SCIENCE AND BIOCHEMISTRY

Larry E. Vereen (Asst Prof) and Valerie A. Paynter (Lab Tech) presented papers at the 42nd Annual Meeting of the South Carolina Academy of Sciences at Clemson University, Apr. 25-26. The papers were: "New Aspects of Aversion in Diplodia zeae (Schw.) Lev." by Larry E. Vereen, J. D. Maxwell, and M. W. Jutras of Clemson University; and "The Isolation and Characterization of Anthocyanins from Plant Tissue" by Valerie A. Paynter and A. L. Shewfelt, Clemson University.

GEOLOGY

R. D. Hatcher (Asst Prof) presented a lecture on his research in Northwest South Carolina to the Geology faculty and students at Furman University, Apr. 29.

The following papers were presented at the Annual Meeting of the S. C. Academy of Science, Clemson University, Apr. 25-26:

G. M. Haselton (Asst Prof), "Recent History of Glaciation in Northeastern Baffin Island, Canada."

R. D. Hatcher, Jr. (Asst Prof), "Complex History of Some Metasediments in Northwest South Carolina."

T. M. Goforth (Stu) and D. S. Snipes (Asst Prof), "On the Origin of Epidote in the Fairplay Quadrangle, Oconee County, South Carolina."

P. K. Birkhead (Assoc Prof) presided over a chemistry-geology session.

INDUSTRIAL MANAGEMENT

On Apr. 23, C. O. Shuler (Assoc Prof), C. A. Burden (Asst Prof), T. F. Gunter (Asst Prof), W. C. Laffoday (Coordinator, PDP), and F. A. Burtner (Prof, Soc) were participants in a "Modern Management Communications Seminar" held at the Clemson House. The Seminar was sponsored by the Society for Advancement of Management (Greenville Chapter).

INDUSTRIAL MANAGEMENT (continued)

C. H. Whitehurst (Hd) has been accepted as a Fellow of the University of Edinburgh in the Department of Politics for the Spring and Summer terms of 1970. During this period he will be on a sabbatical leave from Clemson University. While at Edinburgh Dr. Whitehurst will primarily pursue post-doctoral work in the area of African economics and political economy. As a former merchant marine officer Dr. Whitehurst traveled extensively in countries on the ocean coasts of Africa between 1948-53. Since entering upon a university teaching career in 1960 much of his research has been in the area of political economy. Dr. Whitehurst received his bachelors degree in International Affairs from the Florida State University in 1957, his M.A. in Economics with a minor in Political Science from that same institution in 1958 and his Ph.D. in Economics from the University of Virginia in 1962.

Cyril O. Shuler (Assoc Prof) delivered presentations to the 42nd Annual Meeting of South Carolina Academy of Science at Clemson University. Papers presented were entitled "Health Care Economics" and "A Study of the Production Familiarization Programs for College Graduates in the South Carolina Segment of the Textile Industry." Dr. Shuler was assisted in the preparation of these research papers by Frederick Forte, and by Perry M. Parrott and James W. Orr.

Recent editions of America's Textile Reporter and the Textile Marketing Letter published in New York and distributed nationally featured a study made by C. O. Shuler (Assoc Prof) and assisted by James W. Orr and Perry M. Parrott, Jr. The report entitled, "A Study of the Production Familiarization Programs for College Graduates in S. C. Textile Industry" was described as "must" reading for every textile executive. It was subsidized by the J. E. Sirrine Foundation.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) had the following paper published: "Models for Solid-State Reactions in Powdered Compacts: A Review" in the Journal of the British Ceramic Society, Vol. 6 (1) 11-20 (1969). Dr. Hulbert also presented the paper "Porous Ceramic Implant Materials" at the 3rd Annual Conference on Biomedical Engineering Materials at Madison, Wis. on Apr. 17.

D. A. Venkatu (Asst Prof) presented a paper "Dimensional Changes during the X-ray Irradiation of Potassium Chloride Single Crystals" at the South Carolina Academy of Science held in Clemson, Apr. 25-26. Dr. Venkatu also presented a paper "Cation Diffusion in Single Crystal Rutile" (co-author: L. E. Poteat) at the 71st Annual Meeting of the American Ceramic Society held in Washington, D. C., May 4-6.

S. F. Hulbert (Hd) has been appointed to the Engineering and Urban Health Sciences Study Section of the Environmental Control Administration. Also, Dr. Hulbert has been selected to be co-chairman of the 1970 National Engineering Foundation Research Conference on Bioceramics.

INTERDISCIPLINARY STUDIES IN ENGINEERING (continued)

S. F. Hulbert (Hd) and C. C. Fain (Assoc Prof, CrE) published, "Water Disposable Glass Container," Midwest Engineer, Vol. 21 (9) 10-11 (1969).

S. F. Hulbert (Hd), R. H. Smoak (General Refractories), and D. A. Brosnan (Iowa State) published "Kinetics and Mechanisms of the Reaction Between MgO and Cr_2O_3 ," 573-584 in Reactivity of Solids edited by J. W. Mitchell, R. C. DeVries, R. W. Roberts and P. Cannon, John Wiley & Sons, Inc. (1969).

L. E. Poteat (Assoc Prof) presented a paper "Diffusion of Titanium in Titanium Dioxide" (co-author: D. A. Venkatu) at the Spring meeting of the American Society of Metallurgical Engineers held in Pittsburgh, May 12-15.

S. F. Hulbert (Hd) and F. A. Young (Asst Prof) presented a paper entitled, "Ceramic Implantable Teeth," at the Annual Summer Meeting of the Southeastern Section of the American Ceramic Society, Savannah, Ga., July 12.

The following papers were presented at the 71st Annual Meeting of the American Ceramic Society, Washington, D. C., May 5-9:

D. E. Huff (Grad Stu) and S. F. Hulbert (Hd), "Kinetics of Interaction Between Calcined Kaolin and Hydrochloric, Nitric, and Sulfuric Acids."

M. M. Cooper (Texas Instruments, Houston, Texas), C. C. Fain (Assoc Prof, CrE), and S. F. Hulbert (Hd), "A Water Soluble Glass Container."

S. F. Hulbert (Hd), J. J. Klawitter (Grad Stu), C. D. Talbert (Grad Stu), and C. T. Fitts (Asst Prof of Surgery, Medical College of S. C.), "Compatibility of Ceramics with Bone and Adjacent Soft Tissue."

F. A. Young (Asst Prof), S. F. Hulbert (Hd), and J. J. Klawitter (Grad Stu), "Directly Implantable Ceramic Teeth."

MATHEMATICS

J. V. Brawley, Jr. (Assoc Prof), a Visiting Lecturer for the Mathematics Association of America, recently gave a series of lectures at out-of-state institutions. Two talks were given at Frederick College, Portsmouth, Va. on Apr. 22-23, and three talks were presented at Morehead State University, Morehead, Ky. on May 15-16. The lectures were entitled, "Elementary Algebraic Cryptography," "Some Questions in Algebraic Cryptography," "The Gambler's Ruin," and "Can You Count?"

F. M. Cholewinski (Assoc Prof), a Visiting Lecturer for the Society of Industrial and Applied Mathematics (SIAM), presented a lecture at Notre Dame University on May 8 entitled, "Hankel Convolutions and Uncertainty Inequalities."

MECHANICAL ENGINEERING

T. T. Yang (Prof) spent the summer as a visiting Research Associate at NASA's Lewis Research Center, Cleveland, Ohio where he conducted experimental work on a new type of diffuser design for propulsion type jet engines.

C. S. Rudisill (Assoc Prof) spent the summer as a visiting Research Associate at NASA's Langley Field Research Center at Hampton, Va. His research work was in the area of aeroelasticity.

C. A. Brandon (Assoc Prof) and A. C. Elrod (Assoc Prof) attended the Eleventh National Heat Transfer Conference in Minneapolis, Minn., Aug. 3-6.

E. Harrison (Draper Prof) and D. W. Lyons (Assoc Prof) attended the 1969 Joint Automatic Controls Conference at the University of Colorado, Boulder, Colo., Aug. 5-7. Dr. Harrison has been named general chairman of the 1970 JACC meeting to be held in Atlanta, and Dr. Lyons will serve as the conference program chairman.

The Mechanical Engineering Department has received two unrestricted gifts, \$1000 from Western Electric and \$2000 from the Torrington Bearing Company. In addition, the Garrett Corporation has made available a YT-76 gas turbine engine for research and undergraduate laboratory use.

MICROBIOLOGY SECTION--BIOLOGY DIVISION

Ann W. Baxter (Asst Prof) and M. J. B. Paynter (Asst Prof), together with graduate research assistant H. Furman Cantrell, attended the national meeting of the American Society for Microbiologists held in Miami, May 4-9. Papers were presented by Dr. Baxter and Mr. Cantrell.

MODERN LANGUAGES

R. R. McGregor (Asst Prof) has completed his requirements for the Ph.D. degree at the University of Georgia.

MUSIC

Edith B. Card (Instr) was named president-elect of the South Carolina Music Educator's Association at their annual convention, Apr. 24-26, held at Myrtle Beach.

STUDENT AFFAIRS

James Hoffman (Dir Student Actv) has been appointed Foreign Student Advisor for the 1969-1970 academic session.

PLANT PATHOLOGY AND PHYSIOLOGY

N. D. Camper (Asst Prof) participated in the Cotton Biochemical Conference (sponsored by the National Cotton Council) at Ponte Verde Beach, Fla., June 23-26. Attendance was by invitation and restricted to approximately 70 participants.

PLANT PATHOLOGY AND PHYSIOLOGY (continued)

After three years of continuous service, Wesley Witcher (Assoc Prof) has been asked to serve again in 1970 as a member of the Forest Pathology Technical Committee of the Southern Forest Disease and Insect Research Council.

Wesley Witcher (Assoc Prof) attended the Spring Forestry Training School of the S. C. State Commission of Forestry at Columbia, May 5, and presented a talk on Oak Wilt.

SOCIAL SCIENCES

R. A. Fredland (Instr) read "A Political and Attitudinal Analysis of the South Carolina Republican Party, 1968," before the South Carolina Political Science Association in Clemson, Apr. 10. President Jack E. Tuttle (Assoc Prof) presided at the sessions of the Association.

C. A. Grubb (Asst Prof) has completed the requirements for his Ph.D. degree at Columbia University.

Patricia K. Hill (Asst Prof) has completed the requirements for her Ph.D. degree at the University of Georgia.

TEXTILE SCIENCE

During the past spring and summer, J. L. Lundberg (Assoc Prof) spoke to the Chemistry Department Seminar at Old Dominion University on "Solutions, Adsorptions and Molecular Clustering" and to the Physics Seminar at the University of Alabama in Birmingham on "Light Scattering from Fibers." He contributed a paper to the American Chemical Society meeting in Minneapolis on "Approximate Scattering Functions for Cylinder Fibers" and to the meeting in Philadelphia on "Light Scattering from Inhomogeneous Fibers."

J. L. Lundberg (Assoc Prof) spoke at the banquet of the Southeastern Regional meeting of the American Chemical Society at Tuscaloosa, Ala., on "Chemistry in the Seventies." At the Amherst Forum at the University of Massachusetts on July 24 and 25, he presented two papers entitled "Geometric Optics Approximations for Scattering by Rods" and "A Laser, Scattering Photometer." Dr. Lundberg also attended a seminar at Hercules Research Center in Wilmington, Del. on Aug. 11-13.

F. T. Simon (J. E. Sirrine Visiting Lecturer) presented a lecture on recent computer developments in color matching to technical staffs of various divisions of Burlington Industries. The lecture took place at the research center of Burlington Industries, Greensboro, N. C.

R. H. Barker (Assoc Prof) presented a paper entitled "The Effect of Selected Nitrogen and Phosphorus Containing Compounds on the Thermal Degradation of Cellulose" to the Division of Cellulose, Wood, and Fiber Chemistry, American Chemical Society, on Apr. 18, at their 157th National Meeting in Minneapolis. The paper was co-authored by James E. Hendrix (Textile Grad Stu) and E. S. Olson (Assoc Prof, TC).

COUNSELING CENTER

Dr. Virginia S. Hardie (Dir) presented a paper, "A Study to Determine Value for the University of the Institutional Graduation Record Examination," at the South Carolina Psychological Association meeting at Clemson on April 26.

NURSING

The Dean's office and offices of the faculty of the Baccalaureate and Associate Degree programs are now located on the 7th floor of Strode Tower.

Dean Geraldine Labecki chaired the first meeting of the Committee on Nursing Education of the South Carolina Nurses Association in Columbia on July 25, and served as nursing education consultant at Limestone College on July 29.

EDUCATION, COLLEGE OF

Myrton A. Packer (Assoc Prof) has been appointed Coordinator of Educational Services for the College of Education. Specific duties to be performed by the Office of Educational Services include: (1) Coordinating off-campus inservice and continuing education programs, and contracted programs, both on- and off-campus, (2) Developing and maintaining a central file of teacher education graduates, (3) Developing a program for following up teacher education graduates for evaluation of the program, (4) Developing and operating a teacher placement service for Clemson graduates, including the scheduling of recruitment interviews, and (5) Coordination of graduate programs offered in the various Graduate Centers.

Dean Harold F. Landrith has been elected president of the Department of Higher Education of the South Carolina Education Association for 1969-70. The South Carolina Education Association is composed of approximately 200 faculty members from colleges and universities throughout the state. The main objective of the Department of Higher Education is to establish and direct quality educational programs from elementary school through college.

ENGINEERING, COLLEGE OF

James L. Edwards (Prof) has been appointed assistant to the dean of the College of Engineering. He will assist Dean Linvil G. Rich in administering certain academic areas within the college.

VOCATIONAL EDUCATION MEDIA CENTER

A. K. Jensen (Dir) was elected president of the Subject Matter Specialists section of the Southern Regional Agricultural Education Conference held at Gatlinburg, Tenn., Apr. 27-May 1. Dr. Jensen also attended two recent organizational conferences for the "Study of Curriculums for Occupational Preparation and Education" at Rutgers University. While there, he was elected chairman of a committee designated to organize Vocational Instructional Materials Specialists on a national basis.

Edna Page (Asst Prof) was invited by President Nixon to participate in the President's Committee on the Employment of the Handicapped, May 1 and 2 in Washington, D. C.

GIFTS AND GRANTS

Thomas J. Lipton, Inc., \$4,000 to Truck Experiment Station, for study of tea plants.

Carolinas Golf Course Superintendents Association, \$250 to Horticulture, for turf research.

E. I. DuPont DeNemours & Company, \$500 to Botany and Bacteriology, for field evaluations of benlate as a fungicide on pecans.

Uniroyal, Inc., \$1,000 to Horticulture, for research to be conducted involving Alar in growth regulant experiments.

Diamond Shamrock Chemical Company, \$500 to Agronomy and Soils, for research on weed control in cotton and soybeans.

C.I.B.A. (Agrochemical Corporation), \$1,000 to Agronomy and Soils, for research on weed control in corn, cotton and soybeans.

3-M Company (Minnesota Mining & Manufacturing Company), \$500 to Agronomy and Soils, for research on weed control in cotton and soybeans.

Humble Oil & Refining Company (ESSO Research & Engr. Co.), \$500 to Agronomy and Soils, for research on weed control in soybeans.

Chemagro Corporation, \$550 to Entomology, for testing of several Chemagro compounds on cotton.

Hercules, Inc., \$1,000 to Agronomy and Soils, for weed control in cotton and soybeans.

The UpJohn Company, \$500 to Entomology and Zoology, for control of mites on cotton.

Mineral Research & Development Corp., \$250 to Poultry Science, for toxicity study with a copper compound MRC 201.

E. I. DuPont DeNemours & Company, \$500 to Edisto Experiment Station, for testing DuPont insecticides.

Elanco Products Company, a Division of Eli Lilly Corp., \$1,000 to Horticulture, for research involving evaluation of certain chemicals as herbicides for the production of vegetable crops.

S. C. Department of Agriculture, \$6,500 to Horticulture, for an agricultural demonstration project involving snapbeans.

Eli Lilly Company, \$750 to Edisto Station (Blackville, S. C.), for research on control of powdery mildew on cantaloupes.

GIFTS AND GRANTS (continued)

R. J. Reynolds Tobacco Company, \$7,000 to Pee Dee Station (Florence, S. C.), for research in disease control of tobacco.

George F. Townes, \$250 to Entomology and Economic Zoology, for research to be conducted in the order of Trichoptera.

Imperial Tobacco Company, \$3,000 to Pee Dee Station, for tobacco research.

E. I. DuPont DeNemours & Company, \$500 to Edisto Station, for research on soybeans.

Mobile Chemical Company, \$500 to Plant Pathology and Physiology, for research on cotton seedling diseases.

S. C. State Development Board, \$6,750 to Horticulture, for research on the fruit and vegetable processing industry in South Carolina.

Hercules, Inc., \$800 to Horticulture, for research on peaches involving Hercules product, "Nitroform."

Schering Corp., \$2,000 to Poultry Science, for research involving turkey infections.

Mineral Research and Development Corp., \$100 to Poultry Science, as additional support for poultry research.

S. C. Tricentennial Commission, \$12,500 to Entomology and Economic Zoology, for research on eradication of insect pests at Olde Towne Plantation in Charleston, S. C.

Shell Chemical Company, \$1,500 to Horticulture, for research on weed control in cucumbers, cantaloupes, and watermelons.

Southeastern Seed Developers, Inc., \$1,950 to Truck Station (Charleston, S. C. for continuation of research on pickle lines.

Chemagro Corp., \$500 to Plant Pathology and Physiology, research on powdery mildew on squash.

NEW FACULTY AND STAFF 1969-70

The following members of the faculty and staff joined the University between August 16, 1968 and August 15, 1969.

College of Agriculture and Biological Sciences

Bachop, William, Assistant Professor of Zoology; A.B., Western Reserve University; M.S., Ph.D., Ohio State University; Married, two children

Boswell, John S., Chemist I of Agricultural Chemical Services; B.S., University of Florida; Married

Brodie, Edmund D., Assistant Professor of Zoology; B.S., Oregon College of Education; M.S., Ph.D., Oregon State University; Married, two children

Chen, Chi-chang, Visiting Assistant Professor of Agronomy and Soils; B.S., Taiwan Normal University; M.S., National Taiwan University; Ph.D., McGill University; Married; Apt. #7, Oakhaven Apartments

DeHaven, R. Kenneth, Assistant Professor of Agricultural Economics and Rural Sociology; B.S., Southwest Missouri State College; M.S., Ph.D., University of Missouri; Married, three children; 82 Grove Drive

Gaydon, Douglas M., Assistant Entomologist, Plant Pest Regulatory Services; B.S., Presbyterian College; M.S., Clemson University; Married; 23-A Barre Street

Fairey, John E. III, Assistant Professor of Botany; B.S., University of South Carolina; M.S., University of West Virginia; Single; 318 Pendleton Road

James, Dennis W., Assistant Experiment Station Editor; B.A., M.A., Clemson University; Married; 131-A Freedom Drive

Jen, Joseph J., Assistant Professor of Food Science and Biochemistry; B.S., National Taiwan University; M.S., Washington State University; Ph.D., University of California; Married, 22-A Barre Street

Parks, C. L., Associate Extension Specialist of Agronomy and Soils; B.S., Tennessee Polytechnic Institute; M.S., Auburn University; Ph.D., Texas A & M University; Married; 23-B Barre Street

Rieck, C. E., Assistant Professor of Agronomy and Soils; B.S., M.S., Oklahoma State University; Ph.D., University of Nebraska; Married; 43 Daniel Drive

Sawyer, Roy T., Assistant Professor of Zoology; A.B., Wofford College; M.S., Ph.D., University of Wales; Single

Veal, C. D., Research Assistant of Agricultural Engineering; A.S., Gulf Coast Junior College; B.S.AgE, University of Florida; M.S.AgE, Clemson University; Married; 908 Chester Circle, Pendleton

College of Architecture

Bray, Raymond Derwood, Lecturer in Planning Studies; B.A., University of California; M.A. in Public Administration, University of California; Member of American Institute of Planners; Married

Clement, Jerry McNeill, Assistant Professor of Architecture; B. Arch., Georgia Institute of Technology; M. Arch., (Urban Design), University of Illinois; Married

Melaragno, Michele G., Associate Professor of Architecture; Diplomate Humanities, Collegio Nazareno (Rome); Ph.D., (Civil Engineering), University of Bari; Studies in Architectural Structures, University of Rome; Married

Rowe, Geoffrey A., Visiting Professor of Architecture; B. Arch., University of Leeds (England); Postgraduate Study-Architectural Association, London; Fellow of the Royal Institute of British Architects; Married

Waddell, Donald, Instructor in Visual Studies; B.A., Knox College (Illinois); M.F. (sculpture), University of Chicago; Advanced studio study-Art Institute of Chicago; Married

College of Education

Bosdell, Francis Alvin, Assistant Professor of Industrial Education; B.S., M.S., Clemson University; Married, three children; Blue Ridge Drive

Caley, Paul Cochran, Assistant Professor of Industrial Education; B.S., M.A., Ph.D., Ohio State University; Married, two children; 44 Bradley

Hare, John F., Assistant Professor of Military Science; B.S., Clemson University; Married, three children

Hook, Norris K., Jr., Assistant Professor of Military Science; B.S., Wofford College; Married

Horton, John B., Assistant Professor of Military Science; B.A., Wake Forest University; Married

Irvin, Robert R., Jr., Assistant Professor of Military Science; B.A., Clemson University; Married

Jackson, Joseph P., Assistant Professor of Military Science; B.S., United States Military Academy; Single; 727-5 Greenville Street, Pendleton

Keating, Patrick H., Assistant Professor of Military Science; B.S., United States Military Academy; Married

King, Morris A., Head, Department of Elementary and Secondary Education and Professor of Education; B.S.Ed., University of Georgia; M.A., Ed.D., Teachers College Columbia University; Married, three children; 203 Pleasant View Drive

King, Thomas R., Assistant Professor of Military Science; B.S., University of Wisconsin; Married, two children; 201 Highland Drive

Mattox, Ronald D., Lecturer; Vocational Education Media Center; B.S., Georgia Southern University; Married, one child; 609 Canfield, Anderson

Mozley, James H. III, Assistant Professor of Military Science; B.S., State Teachers College (Alabama); Married, two children

Peavler, Robert N., Assistant Professor of Aerospace Studies; B.B.A., Oklahoma University; Married, two children; #1 Shorecrest Apartments

Preikshat, William W., Jr., Associate Professor of Education; B.S.Ed., Northern Illinois University; M.A., University of Illinois; Ed.D., Indiana University; Married, four children

Ruple, Charles W., Assistant Professor of Military Science; B.S., Auburn University; Married, two children; 119 Freedom Drive

Stoewe, Russell J., Assistant Professor of Military Science; B.S., University of Missouri; Married; 100A Finley Street

Walker, Mrs. Sarah Ann, Assistant Professor of Recreation and Park Administration; B.S., University of Wisconsin; M.S., Indiana University

West, William Elmer, Assistant Professor of Industrial Education; B.S., M.A., Ph.D., Ohio State University; Married, two children; 34-F Daniel Drive

College of Engineering

Amoss, Donald C., Assistant Professor of Electrical Engineering; B.S.E.E., M.S., Ph.D., Drexel Institute of Technology; Married, two children

Austin, John H., Professor of Environmental Systems Engineering; B.S.C.E., Syracuse University; S.M., Massachusetts Institute of Technology; Ph.D., University of California; Married, four children; 34-G Daniel Drive

Coffeen, William W., Associate Professor of Ceramic Engineering; B.S.CrE, M.S.CrE, University of Illinois; Ph.D., Rutgers University; Married, two children

Coxe, Edwin F., Associate Professor of Mechanical Engineering; B.S.M.E., University of South Carolina; M.S.M.E., Drexel Institute of Technology; Ph.D., University of South Carolina; Married, five children

Eitel, Michael J., Associate Professor of Materials Engineering; B.S., University of Tennessee; Ph.D., University of Illinois; Married, two children; 21-G Barre Street

Helgert, Hermann J., Assistant Professor of Electrical Engineering; B.S.E.E., University of Buffalo; M.S.E.E., Ph.D., State University of New York at Buffalo; Married

Keinath, Thomas M., Assistant Professor of Environmental Systems Engineering; B.S.E., M.S.E., Ph.D., University of Michigan; Married; 613 Cherry Road

Melsheimer, S. S., Assistant Professor of Chemical Engineering; B.S.Ch.E., Louisiana State University; Ph.D., Tulane University; Married, one child; 356 Pendleton Road

Roberts, Freddy L., Assistant Professor of Civil Engineering; B.S.C.E., M.S.C.E., University of Arkansas; Ph.D., University of Texas; Married, one child

Stinaff, Russell D., Assistant Professor of Electrical Engineering; B.S.E.E., University of Akron; M.S.E.E., Purdue University; Ph.D., University of Illinois; Married

Tolins, Irwin S., Associate Professor of Mechanical Engineering; B.S.C.E., M.S.C.E., Ph.D., Columbia University; Married; Shorecrest Apartments

Wolf, James S., Associate Professor of Materials Engineering; B.S., M.S., Case Institute of Technology; Ph.D., University of Florida; Married; 32-A Berkley Avenue

College of Industrial Management and Textile Science

Burch, Elmer E., Instructor of Industrial Management; B.S., M.S., Clemson University; Married, one child; 426 Pendleton Road

Friese, James E., Visiting Instructor of Industrial Management; B.B.A., Georgia Southern College; Single

Nordquist, Lowell E., Instructor of Economics; B.S., North Dakota State University; M.A., Western Michigan University; Married; 10-A Daniel Drive

Wise, Albert G., Instructor of Economics; A.B., Muhlenberg College; M.B.A., Memphis State University; Married

Yandle, Thomas B., Assistant Professor of Economics; A.B., Mercer University; M.B.A., Georgia State College; Married, three children; 45 Bradley Street

Ziegler, Joseph A., Assistant Professor of Economics; B.A., St. Mary's College; Married; 6-C Daniel Drive

College of Liberal Arts

Alem, Miss Irene Armande, Visiting Instructor in French; licence es lettres, Sorbonne

Benson, Guyton Alan, Instructor in Music and Director of Choral Activities; B.M.E., Florida State University; M.M., University of South Florida; Married

Caffrey, Bernard, Assistant Professor of Psychology; B.A., St. Vincent College; M.A., Ph.D., Catholic University; Married, three children; 109 Carolina Drive

DeGregory, Jerry Louis, Instructor in Sociology; B.S., M.A., Memphis State University; Married

Doggette, John Richard, Instructor in Sociology; B.A., M.A., University of Cincinnati; M.S., University of Wisconsin; Married; Ft. Hill Apts., Apt. No. 3, Sloan Street

Freeman, Edwin Armistead, Assistant Professor of Music; B.S., Clemson University; B.M., Louisiana State University; M.A., Columbia University; Married, two children

Haw, Mrs. Elizabeth Merritt, Part-time Lecturer in History; B.A., Louisiana State University; two children; 204 Pine Street

Kennedy, John Michael, Assistant Professor of History; A.B., Columbia College; M.A., Stanford University; M.A., Ph.D., Yale University; Single

Lafitte, Mrs. Germaine Marie, Visiting Instructor in French; licence es lettres, University of Paris; three children; 102 Riggs Drive

Lewis, Hodges Alvin, Instructor in French; A.B., M.A., University of Georgia; Single

Riski, Miss Michele Helyne, Instructor in Spanish; B.A., Converse College; M.A., Tulane University

Robertson, Robert Glenn, Assistant Professor of French; A.A., Charlotte College; B.A., University of North Carolina; M.A., University of Illinois; Single

Rogers, Rodney Outhwaite, Assistant Professor of English; B.S., Massachusetts Institute of Technology; M.A., University of Virginia; Married, two children

Saunders, Richard Leroy, Jr., Assistant Professor of History; B.A., Northwestern University; M.A., University of Illinois; Single; 7-B Daniel Drive

Seamon, Leon Edward, Instructor in French and Spanish; B.S., Georgia Institute of Technology; M.A., University of Georgia; Married, one child; 31-A Bradley Street

Turpin, William Bradley, Assistant Professor of Psychology; A.B., University of Virginia; M.A., Princeton University; Ph.D., University of Alabama; Married, one child

Weymouth, Anthony George, Visiting Instructor in French; B.A. (Honors), University of Lancaster; Married, two children

Whitmire, Jerry Morris, Assistant Professor of Spanish; A.B., University of North Carolina; M.A., University of Alabama; Married, three children

Witt, James William, Assistant Professor of Political Science; B.A., Loyola University; M.A., Ph.D., University of Southern California; Married, two children; 21-F Barre Street

Woodell, Charles Harold, Instructor in English; B.A., M.A., Wake Forest University; Married; 20-B Hunter Street

School of Nursing

Chassie, Mrs. Marilyn Bache, Lecturer; B.S.N., Vanderbilt University; M.S., Boston University

Godbout, Miss Rose A., Associate Professor; Diploma, Corpus Christi (Texas) School for Nurses; B.S., George Peabody College for Teachers; M.P.H., University of Minnesota

Hall, Miss Elizabeth J., Associate Professor; Diploma, The Children's Hospital; B.S. Simmons College; Ed.M., Boston University

Hipps, Mrs. Opal S., Instructor; B.S.N., M.S.N., University of North Carolina; two children

Privette, Mrs. Esther B., Instructor; B.S.N., University of South Carolina

Thompson, Miss Regina, Assistant Professor; Diploma, Lincoln School for Nurses; B.S. Bluefield State College; M.A., Teachers College, Columbia University

Whitley, Mrs. Harriet E., Instructor; Diploma, Mercy School of Nursing; Associate of Applied Science, Sacred Heart Junior College; B.S., Queen's College; M.N., Emory University

Woods, Miss Juanita F., Lecturer; B.S.N., University of Alabama; M.A., New York University

College of Physical and Mathematical Sciences

Alam, Kursheed, Associate Professor of Mathematics; B.S., M.A. Patna Science College (India); Ph.D., University of Minnesota; Married, four children

Fennell, Robert Emmett, Assistant Professor of Mathematics; B.A., Bradley University; M.S., Ph.D., University of Iowa; Married

Haymond, Robert Edward, Associate Professor of Mathematics; B.S., University of South Carolina; M.S., California Institute of Technology; Ph.D., University of Oregon; Married, two children

Jacobus, Otha John, Assistant Professor of Chemistry; B.S., Southwestern at Memphis; Ph.D., University of Tennessee; Married

Kenelly, John W., Professor of Mathematics and Head of Department; B.S., Southeastern Louisiana College; M.S., University of Mississippi; Ph.D., University of Florida; Married, two children; 327 Woodland Way

Manson, Joseph Richard, Assistant Professor of Physics; B.S., University of Richmond; Ph.D., University of Virginia; Married

Powell, Gary Lee, Assistant Professor of Chemistry; B.S., University of California at Los Angeles; Ph.D., Purdue University; Married

Ruckle, William Henry, Associate Professor of Mathematics; A.B., Lincoln University; M.S., Ph.D., Florida State University; Married, one child; 114 Clarendon Drive

Zehna, Peter William, Visiting Professor of Mathematics; A.B., A.M., Colorado State University; A.M., University of Kansas; Ph.D., Stanford University; Married, four children; Bayshore Estates, North Bayshore Drive

Clemson University at Greenville TEC

Dickens, Larry, Instructor in Chemistry, Clemson University at Greenville TEC; B.S., David Lipscomb College; Married

Melton, Maurice K., Instructor in History, Clemson University at Greenville TEC; B.A., Southwest Missouri State College; M.A., University of Georgia; Married

Rompala, John T., Assistant Professor of Physics, Clemson University at Greenville TEC; B.S., DePaul University; Ph.D., Clemson University; Single

Thaker, Harshadray H., Instructor of Economics, Clemson University at Greenville TEC; B.A., Gujarat College in India; L.L.B., Sir L.S. Law College in India; M.A., Appalachian State University; Married, two children

Van Hoy, Milton S., Instructor in English and French, Clemson University at Greenville TEC; A.B., Duke University; M.A., University of North Carolina; Single

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Clemson University at Sumter

Alderman, Herman D., Instructor in Engineering, Clemson University at Sumter; B.S., University of South Carolina; M.S., Vanderbilt University; Single; P. O. Box 158, Alcolu

Rutledge, Roger K., Part-time Instructor in Sociology, Clemson University at Sumter; B.A., University of South Carolina; M.A., University of Chicago; Married, one child; 1908 Georgianna Drive, Sumter

Business and Financial Affairs

Moore, Walter A., Assistant Plant Engineer, Physical Plant; B.S., Clemson University; Route 2, Pendleton

Thompson, Ray L., Assistant Personnel Director, Personnel Division; B.S., University of South Carolina; Married, two children; Lebanon Community, Pendleton

Student Affairs

Gault, Herbert Earl, Assistant Sports Information Director, Athletic Department; Anderson Junior College; Carson-Newman College; Single

Marx, Albert B., Associate Director, Admissions and Registration; B.S., M.S., University of Illinois; Married, one child; Carolus Drive

Vaughn, John Richard, Staff Physician, Redfern Health Center; B.S., Clemson University; M.D., Medical College of South Carolina; Internship Baltimore General Hospital, Baltimore, Maryland; General Physician U. S. Navy 1967-1969; Single

The Robert Muldrow Cooper Library

Reidy, Miss Genevieve Leonora, Reference Librarian, Science Technology and Agriculture Division; B.S., M.S., Syracuse University

Sutcliffe, Mrs. Priscilla Heath, Special Collections Librarian; B.A., Bates College; M.S. in L.S., University of North Carolina

Wood, Lawrence Robert, Cataloger; A.B., Gettysburg College; M.S. in L.S., Villanova University

CLEMSON UNIVERSITY CALENDAR OF CAMPUS EVENTS

Aug.	15	Fri.	8:00 a.m.	New Faculty and Staff Orientation
Aug.	16	Sat.		New Faculty--College or School Orientation
Aug. Sept.	17- 7	Sun.		A Corporation Collects, Circulated by the American Federation of Arts, Lee Hall Gallery
Aug.	18-19	Mon.-Tu.		Matriculation, New Students
Aug.	18	Mon.	10:30 a.m.	General Faculty and Staff Meeting, Brackett Auditorium
Aug.	19-20	Tu.-Wed.		Matriculation, Current Students
Aug.	20	Wed.	6:00 p.m.	Freshmen Picnic - President's Home
Aug.	21	Th.		Parties at Area Churches
Aug.	22	Fri.		Classes begin, abbreviated class schedule
Aug.	28	Th.	8:00 p.m.- 9:30 p.m.	President and Mrs. Edwards "At Home" to Faculty and Staff
Aug.	30	Sat.		CDA Open Mixer - Dining Hall
Sept.	1	Mon.	9:00 a.m.	Educational Council Meeting
Sept. Oct.	11- 8	Th.		Arts and Crafts, Penland School of Crafts, Penland, N. C., Lee Hall Gallery
Sept.	20	Sat.	1:30 EDT	Football - Virginia at Charlottesville, Va.
Sept.	26	Fri.		CDA Rat Hop - Dining Hall
Sept.	27	Sat.	1:30 EDT	Football - Georgia at Clemson (IPTAY Day)
Sept.	27	Sat.		South Atlantic Intercollegiate Sailing Assoc. Clemson - U.S.C. Team Match
Sept.	27	Sat.		CDA Concert, Coliseum
Oct.	1-4	W-Sat.	8:00 p.m.	Clemson Little Theatre, Food Industries Aud.
Oct.	3	Fri.	2:00 EDT	Freshman Football - Georgia at Clemson
Oct.	3	Fri.	3:00 p.m.	Soccer - Maryland at College Park, Md.

Oct.	4	Sat.	2:00 EDT	Football - Georgia Tech. at Atlanta, Ga.
Oct.	4	Sat.		South Atlantic Intercollegiate Sailing Assoc., Citadel Invitational
Oct.	4-5	Sat-S		Carolinas Geology Society Meeting, Clemson House
Oct.	5	Sun.	2:00 p.m.	Soccer - Virginia at Charlottesville, Va.
Oct.	6	Mon.	9:00 a.m.	Educational Council Meeting
Oct.	6	Mon.	8:00 p.m.	Concert - Brussels Chamber Orchestra, Little- john Coliseum
Oct.	8-11	W-Sat.	8:00 p.m.	Clemson Players - Daniel Hall Theatre
Oct.	8	Wed.		Miss Clemson Pageant, Coliseum
Oct.	10	Fri.		Dental Aptitude Test, Room 20, Tillman Hall
Oct.	10	Fri.	2:00 EDT	Freshman Football - USC at Clemson
Oct.	10-11	F-Sat.	3:30 p.m.	Soccer - Emory Invitational Tournament at Atlanta, Ga.
Oct.	11	Sat.	1:30 CDT	Football - Auburn at Auburn, Ala.
Oct.	11	Sat.		South Atlantic Intercollegiate Sailing Assoc., University of Virginia Invitational
Oct. Nov.	11- 9	Sat.		The Grand Design, Circulated by the Smithsonian Institution, Lee Hall Gallery
Oct.	15	Wed.	3:00 p.m.	Soccer - UNC at Chapel Hill, N. C.
Oct.	17	Fri.	3:00 EDT	Freshman Football - Duke at Durham, N. C.
Oct.	17	Fri.	8:00 p.m.	CDA Concert - Coliseum Tigerama - Memorial Stadium
Oct.	18	Sat.	10:30 a.m.	Soccer - The Citadel at Clemson
Oct.	18	Sat.	1:30 EDT	Football - Wake Forest at Clemson (Homecoming- classes suspended)
Oct.	18	Sat.	8:00 p.m.	CDA Homecoming Concert in the Coliseum

Oct.	18	Sat.		South Atlantic Intercollegiate Sailing Assoc., Davidson College Invitational
Oct.	22	Wed.	8:00 p.m.	Concert - Osipov Balalaika Orchestra of Moscow, Littlejohn Coliseum
Oct.	24	Fri.	8:00 p.m.	Concert - U. S. Army Field Band, Littlejohn Coliseum (Free)
Oct.	24	Fri.	2:00 EDT	Freshman Football - Georgia Tech at Clemson
Oct.	24	Fri.	3:00 p.m.	Soccer - Duke at Clemson
Oct.	25	Sat.	1:30 EDT	Football - Alabama at Clemson (Dad's Day)
Oct.	25	Sat.		South Atlantic Intercollegiate Sailing Assoc., U. S. C. Invitational
Oct.	25	Sat.		Graduate Record Examination, Room 20, Tillman Hall
Oct.	29	Wed.	3:00 p.m.	Soccer - Furman at Clemson
Oct.	31	Fri.	3:00 EST	Freshman Football - Wake Forest at Winston- Salem, N. C.
Oct.	31	Fri.		CDA Halloween Dance - Dining Hall
Nov.	1	Sat.	1:30 EST	Football - Maryland at Clemson (Band Day)
Nov.	1	Sat.	8:00 p.m.	CDA Concert in Coliseum
Nov.	1	Sat.		South Atlantic Intercollegiate Sailing Assoc., Clemson - College of Charleston Team Match
Nov.	1	Sat.		Admission Test for Graduate Study in Business, Room 20, Tillman Hall
Nov.	3	Mon.	9:00 a.m.	Educational Council Meeting
Nov.	4	Tu.	3:00 p.m.	Soccer - Erskine at Clemson
Nov. Dec.	5- 1	Wed.		The Architecture of Charles Warren Callister, California Redwood Association, Lee Hall Gallery
Nov.	8	Sat.	2:00 EST	Football - Duke at Durham, N. C.
Nov.	8	Sat.	10:00 a.m.	Soccer - N. C. State at Raleigh, N. C.

Nov.	8	Sat.		South Atlantic Intercollegiate Sailing Assoc., Old Dominion Invitational
Nov. Dec.	11- 9	Tu.		Selected Prints For Young Collectors, Roten Gallery, Lee Hall Gallery
Nov.	12-15	W-Sat	8:00 p.m.	Clemson Players, Daniel Hall Theatre
Nov.	13	Th.	8:00 a.m.- 4:30 p.m.	Income Tax Clinic, conducted by Industrial Management Dept., Sirrine Hall
Nov.	13	Th.	3:00 p.m.	Soccer - Western Carolina at Clemson
Nov.	15	Sat.	1:30 EST	Football - North Carolina at Chapel Hill, N. C.
Nov.	15	Sat.		South Atlantic Intercollegiate Sailing Assoc., College of Charleston Invitational
Nov.	15	Sat.		Architectural School Aptitude Test, Room 20, Tillman Hall
Nov.	22	Sat.	1:30 EST	Football - South Carolina at Columbia, S. C. (Classes suspended)
Nov.	22	Sat.		South Atlantic Intercollegiate Sailing Assoc., Fall Championships at Clemson
Nov.	24-26	M-Wed.		Follow Thursday, Friday, Saturday Class Schedule
Nov.	27-29	Th-Sat.		Thanksgiving Holidays
Dec.	1	Mon.	9:00 a.m.	Educational Council Meeting
Dec.	3-6	W-Sat.	8:00 p.m.	Clemson Little Theatre, Food Industries Aud.
Dec.	4	Th.		Basketball - Auburn at Clemson
Dec.	5	Fri.	7:30 p.m.	Glee Club Christmas Concert in Tillman Hall
Dec.	6-7	Sat.-S	3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre
Dec.	6	Sat.		Graduate School Foreign Language Test, Room 20, Tillman Hall
Dec.	8	Mon.		Examinations begin

Dec.	9-	Tu.	Mid-Term Student Work Exhibit, Lee Hall Gallery
Jan.	2		
Dec.	13-14	Sat.-S 3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre
Dec.	13	Sat.	Graduate Record Examination, Room 20, Tillman Hall
Dec.	17	Wed.	Basketball - Alabama at Clemson
Dec.	18	Th.	Mid-Year Graduation
Dec.	20	Sat.	Basketball - LSU at Charlotte, N. C.
Dec.	22-23	M-Tu.	Basketball - Clemson in Sun Bowl Classic at El Paso, Texas

1970

Jan.	3-28	Sat.	What Is Modern Architecture, Museum of Modern Art, Lee Hall Gallery
Jan.	5	Mon.	Orientation, New Students
Jan.	5	Mon.	9:00 a.m. Educational Council Meeting
Jan.	6	Tu.	Registration, All Students
Jan.	7	Wed.	Basketball - Georgia Tech at Atlanta, Ga.
Jan.	7	Wed.	Late Registration
Jan.	8	Th.	Classes begin
Jan.	9	Fri.	Dental Aptitude Test, Room 20, Tillman Hall
Jan.	10	Sat.	Basketball - Virginia at Clemson
Jan.	12	Mon.	Basketball - Maryland at Clemson
Jan.	14	Wed.	Last day for registration
Jan.	15	Th.	Basketball - UNC at Clemson
Jan.	17	Sat.	Basketball - Furman at Greenville, S. C.
Jan.	17	Sat.	Architectural School Aptitude Test, Room 20, Tillman Hall

Jan.	17	Sat.		Graduate Record Examination, Room 20, Tillman Hall
Jan.	19	Mon.		Basketball - Georgia Tech at Clemson
Jan.	21	Wed.		The New Folk
Jan.	22	Th.		Basketball - Florida State at Tallahassee, Fla.
Jan.	24	Sat.		Basketball - VPI at Clemson
Jan.	24	Sat.		Veterinary Aptitude Test, Room 20, Tillman Hall
Jan.	26	Mon.		Basketball - USC at Clemson
Jan.	28	Wed.		Basketball - Furman at Clemson
Jan.	29	Th.	8:00 p.m.	Shakespearean Play - "King Lear" - Tillman Hall Aud.
Jan. Feb.	30- 15	Fri.		School of Architecture Faculty Exhibit, Lee Hall Gallery
Jan.	31	Sat.		Basketball - N. C. State at Raleigh, N. C.
Feb.	2	Mon.	9:00 a.m.	Educational Council Meeting
Feb. Mar.	2- 5	Mon.		Foothill College, California Redwood Association, Lee Hall Gallery
Feb.	4	Wed.		Basketball - Duke at Clemson
Feb. Mar.	5- 13	Th.		Contemporary Photographers I & II, George Eastman House, Lee Hall Gallery
Feb.	7	Sat.		Basketball - USC at Columbia, S. C.
Feb.	7	Sat.		Admission Test for Graduate Study in Business, Room 20, Tillman Hall
Feb.	9	Mon.		Basketball - Duke at Durham, N. C.
Feb.	11-14	W-Sat.	8:00 .m.	Clemson Music Club, Food Industries Auditorium
Feb.	12	Th.	. . . p.m.	Concert - Norman Luboff Choir, Littlejohn Coliseum
Feb.	13	Fri.		Basketball - UNC at Charlotte, N. C.
Feb.	14	Sat.		Basketball - N. C. State at Charlotte, N. C.

Feb.	18	Wed.	Basketball - Wake Forest at Winston-Salem, N. C.
Feb.	18-21	W-Sat. 8:00 p.m.	Clemson Players, Daniel Hall Theatre
Feb.	21	Sat.	Basketball - Virginia at Charlottesville, Va.
Feb.	23	Mon.	Basketball - Maryland at College Park, Md.
Feb.	26	Th. 8:00 p.m.	Concert - Stockholm Philharmonic Orchestra, Littlejohn Coliseum
Feb.	28	Sat.	Basketball - Wake Forest at Clemson
Mar.	2	Mon. 9:00 a.m.	Educational Council Meeting
Mar.	7	Sat.	Baseball - Louisville at Clemson (2 games)
Mar.	9	Mon. 8:00 p.m.	Concert - Trumpets of the Lord, Littlejohn Coliseum
Mar.	11-14	W-Sat. 8:00 p.m.	Clemson Little Theatre, Food Industries Aud.
Mar.	12-13	Th.-Fri.	Baseball - Florida at Gainesville, Fla.
Mar.	14	Sat.	Baseball - Florida at Gainesville, Fla. (2 games)
Mar.	14	Sat.	Spring holidays begin at noon
Mar. Apr.	15- 5	Sun.	The Bocour Artist Colors Collection, Lee Hall Gallery
Mar.	16	Mon.	Baseball - Jacksonville at Jacksonville, Fla.
Mar.	17	Tu.	Baseball - Jacksonville at Jacksonville, Fla. (2 games)
Mar.	18-21	W-Sat.	Baseball - Georgia Southern Tournament at Statesboro, Ga. (2 games daily)
Mar.	23	Mon.	Classes resume
Mar.	23	Mon.	Baseball - George Washington at Clemson
Mar. Apr.	24- 28	Tuesdays	Continuing Education Classes
Mar.	25-26	Wed.	Baseball - Ohio University at Clemson
Mar.	27	Fri.	Baseball - Vermont at Clemson

Mar.	28	Sat.	Architectural School Aptitude Test, Room 20, Tillman Hall
Mar.	28	Sat.	Baseball - Rider College at Clemson (2 games)
Apr.	1	Wed.	Baseball - Georgia at Clemson
Apr.	4	Sat.	Admission Test for Graduate Study in Business, Room 20, Tillman Hall
Apr.	4	Sat.	Baseball - Wake Forest at Clemson (2 games)
Apr.	5	Sun.	Baseball - Duke at Clemson
Apr.	6	Mon.	9:00 a.m. Educational Council Meeting
Apr.	7	Tu.	Baseball - Georgia Tech at Clemson
Apr.	8	Wed.	Honors and Awards Day - Classes suspended at noon
Apr. May	8- 9	Wed.	Greenville County Museum of Art Collection, Lee Hall Gallery
Apr.	10	Fri.	Baseball - N. C. State at Clemson
Apr.	10-11	F-Sat.	Southeastern Sectional Conference of Undergraduate Student Chemists, Clemson House
Apr.	11	Sat.	Baseball - UNC at Clemson (2 games)
Apr.	14	Tu.	Baseball - USC at Columbia, S. C. (2 games)
Apr. May	15- 15	Wed.	1969 Homes For Better Living Awards, Lee Hall Gallery
Apr.	18-19	S-Sun.	3:00 p.m. Clemson Area Youth Theatre, Daniel Hall Theatre
Apr.	18	Sat.	Baseball - Virginia at Charlottesville, Va. (2 games)
Apr.	19	Sun.	Baseball - Maryland at College Park, Md.
Apr.	24	Fri.	Dental Aptitude Test, Room 20, Tillman Hall
Apr.	25	Sat.	Graduate Record Examination, Room 20, Tillman Hall
Apr.	25-26	S-Sun.	3:00 p.m. Clemson Area Youth Theatre, Daniel Hall Theatre
Apr.	27	Mon.	Examinations begin

May	2	Sat.	Graduate School Foreign Language Test, Room 20, Tillman Hall
May	4	Mon. 9:00 a.m.	Educational Council Meeting
May	5	Tu.	Baseball - USC at Clemson
May	6	Wed.	Baseball - Georgia at Athens, Ga.
May	7-8	T-Fri.	Baseball - Georgia Tech at Atlanta, Ga.
May	8	Fri.	Commencement and Commissioning Exercises
May	10	Sun.	Baseball - Virginia at Clemson
May	11	Mon.	Baseball - UNC at Chapel Hill, N. C.
May	12	Tu.	Baseball - N. C. State at Raleigh, N. C. (2 games)
May	13-14	W-Th.	Baseball - Virginia Tech at Blacksburg, Va.
May	15	Fri.	Baseball - Wake Forest at Winston-Salem, N. C.
May June	15- 30	Fri.	Theses 1970, Lee Hall Gallery
May	16	Sat.	Baseball - Duke at Durham, N. C. (2 games)
May	18	Mon.	First Summer Session Begins
June	12-14	F-Sun.	Alumni Weekend
June	29	Mon.	Second Summer Session Begins
July	11	Sat.	Graduate Record Examination, Room 20, Tillman Hall
July	18	Sat.	Graduate School Foreign Language Test, Room 20, Tillman Hall
Aug.	8	Sat.	Graduation

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CLEMSON

NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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September 1, 1969

UNAUTHORIZED QUESTIONNAIRES

Forms and questionnaires are from time to time received from governmental agencies usually originating in field offices and even among state officials which imply federal authorization. Detailed information on such things as hiring, safety devices, pollution control measures and business operations impose an increasing burden on the administration. The legitimacy of such an inquiry can be determined by a U. S. Budget Bureau number which will appear on one of the upper corners of the front page of the questionnaire or inquiry. If such number does not appear, it is probably unauthorized. Two exceptions to this general observation are tax forms and antitrust letters. If such unauthorized forms or questionnaires are received, send them to the President's Office and appropriate inquiry as to their legitimacy will be made.

TWO RECENT CHANGES IN SOUTH CAROLINA RETIREMENT

Prior to July 1, 1969, any member of the South Carolina Retirement System who elected to retire prior to age 65 faced a penalty of 5% per year for each year of early retirement. For example, a member who retired at age 62, was eligible for only 85% of the maximum rate he would have received had he already attained age 65. (A similar provision in the Social Security law authorizes only 80% of the "age 65 rate" if a person retires at age 62.)

Effective July 1, 1969, this 5% per year penalty for early retirement was removed for any member who has completed a total of 35 years of creditable service in covered employment. Therefore, a member with 35 years of creditable service may now retire, regardless of attained age, and be eligible for the maximum retirement allowance based on his completed service at the date he elects to retire. The 5% per year penalty continues in effect for any member who retires prior to age 65 with less than 35 years of creditable service, and no such member may qualify for any service retirement benefits before he reaches age 60.

A second change which became effective July 1, 1969 permits a retired member to earn \$2400 per (fiscal) year in covered employment without affecting his retirement benefits. Formerly, the permitted limit was \$1800. Any retired member who exceeds this amount will lose all State Retirement benefits until the beginning of the next fiscal year. Earnings from non-covered employment do not affect State Retirement benefits.

INFORMATIONAL ITEMS ISSUED BY PERSONNEL DIVISION

During the recent Orientation Sessions, over 100 new members of the Faculty received sets of informational material issued by the Personnel Division.

Revised as of August 1, 1969, this material includes details concerning (a) sick leave and annual leave, (b) Workmen's Compensation, (c) available group insurance programs, (d) the Credit Union of the S. C. State Employees' Association, (e) Tax-Deferred Annuities, (f) the State Retirement System, (g) the Pre-Retirement Death Benefit, and (h) Miscellaneous information about voting, local taxes, and driving licenses.

These sets are available to all employees through the office of each Department Head. If you have not done so within the past year, please review the current information on items which are of interest to you.

DATES ANNOUNCED FOR NATIONAL AND RESTRICTED TESTS

Dr. Virginia S. Hardie (Dir Counseling Center) announces the scheduled dates for the administration of national and restricted tests. She urges deans and department heads to remind students interested in graduate study to take special notice and secure applications for registration from the Counseling Center, Room 20, Tillman Hall, where all tests will be given.

The following schedule of testing dates has been arranged:

Admission Test for Graduate Study in Business: Nov. 1, 1969; Feb. 7, 1970; April 4, 1970. Architectural School Aptitude Test: Nov. 15, 1969; Jan. 17, 1970; March 28, 1970. Dental Aptitude Test: Oct. 10, 1969; Jan. 9, 1970; April 24, 1970. Graduate Record Examination: Oct. 25, 1969; Dec. 13, 1969; Jan. 17, 1970; April 25, 1970; July 11, 1970. Graduate School Foreign Language Test: Dec. 6, 1969; May 2, 1970; July 18, 1970. Medical College Admission Test: (date to be announced). Veterinary Aptitude Test: Jan. 24, 1970.

The following special tests are given by appointment and for a fee: Miller Analogies Test; Minnesota Engineering Analogies Test; Doppelt Mathematical Reasoning Test; American Institute of Certified Public Accountants, Aptitude and Achievement Test; and specific tests for students transferring to other colleges and universities.

MINUTES OF THE JULY RESEARCH COUNCIL MEETING

The Research Council convened its July meeting at 4:00 p.m., July 15, 1969, in Room 28, Tillman Hall.

Discussions of: (1) the proposed manual for researchers (Janzen), (2) avenues for handling of grievances (Bungay), (3) availability of housing for both students and nonstudents employed by the University during summer months (Fanning), were undertaken with no formal actions implemented.

Chairman G. C. Kingsland asked Council members H. Will Graben, J. W. Hubbard, and S. F. Hulbert to assist with New Faculty Orientation, August 18.

ADMINISTRATION

R. C. Edwards (President) and C. B. Green (Asst Dean of the Univ) attended the opening convocation of Clemson University at Sumter on August 22, 1969, at which time President Edwards spoke to the faculty and students.

C. B. Green (Asst Dean of the Univ) represented Clemson at the Service-Learning Conference on June 30-July 1, in Atlanta, and at the Conference on a National Agenda for American Education in Washington, D. C., on July 17-18.

AGRICULTURAL EDUCATION

Lowery H. Davis (Hd) served as member of team to evaluate teacher education programs at the University of Georgia in May. He also served as consultant to the Wyoming Vocational Education Conference.

Earl T. Carpenter (Assoc Prof) participated in the conference "Vocational Agriculture in the Changing Scene" conducted by the Agricultural Policy Institute at North Carolina State University June 3, 4, and 5. Approximately 50 educators from North and South Carolina and Georgia were in attendance. Dr. Carpenter served as chairman of the final session.

E. T. Carpenter (Assoc Prof) and J. A. Hash (Asst Prof) attended the Southern Research Conference in Agricultural Education at Louisiana State University, July 30-Aug. 1. Dr. Carpenter participated in a panel discussion titled "Organizing an Agricultural Education Department for Effective Research." He also served on the nominating committee. Dr. Hash presented a paper on "The Construction of Standardized Achievement Tests for Off-Farm Agricultural Occupations."

ENGLISH

John J. McLaughlin (Assoc Prof) has an article, "The Future of Farce" accepted for publication in the Journal of Popular Culture.

EXPERIMENTAL STATISTICS

W. B. Byrd (Prof & Chm) has been appointed to the committee, Information Retrieval, of the American Society of Agronomy.

C. B. Loadholt (Asst Prof) presented a paper, "Evolutionary Processes Involving Genetic Selection Due to Maternal-Fetal Genotypic Interaction," (with Klaus Hinkleman, V.P.I.) at the national meeting of the Biometric Society, New York, Aug. 19.

FACULTY ACADEMIC STANDING COMMITTEES 1969-70

1. Admissions. The Dean of Admissions and Registration serves as chairman ex officio and the Registrar is an ex officio member. The committee makes specific recommendations to the President in cases of individual student petitions. The committee deals not only with original admission problems, but with aspects of continuing enrollment.

K. N. Vickery (Chairman, ex officio)

N. R. Bauld (EM)	1970	Susan H. Brown (IM)	1971
Herbert Brantley (RPA)	1970	B. N. Skardon (Engl)	1971
C. C. Fain (CrE)	1970	Eugene Park (Math)	1972
V. S. Hodges (Arch & Fac. Senate)	1970	B. J. Skelton (Hort)	1972
S. M. Watson (ME)	1970	R. J. Berry (<u>ex officio</u>)	

2. Athletic Council.

R. R. Ritchie (Chairman)

W. J. Lanham (AgEc)	1970	R. W. Moorman (EM)	--
J. L. Young (Arch)	1971	K. N. Vickery (Dean, Adm & Registration)	--
J. V. Brawley, Jr. (Math)	1972	T. C. Breazeale, Alumni Member	--
T. D. Efland (IM & TS)	1972	P. H. Prince, Alumni Member	--
J. F. Pearce (Econ & Pres., Fac. Senate)			

3. Curricula. Ex officio members are the President of the Faculty Senate, the Dean of Admissions and Registration, and the Dean of the University, who acts as chairman. Faculty members of the committee are chairmen of school or college curriculum committees. The University Curricula Committee recommends to the Educational Council the addition or deletion of existing curricula and specific changes within curricula.

Victor Hurst (Chairman, ex officio)

H. W. Busching (CE)	1970	J. F. Pearce (Econ & Pres., Fac. Senate, <u>ex officio</u>)
C. C. Davis (IM)	1970	
Herbert Brantley (RPA)	1971	K. N. Vickery (Dean, Adm & Reg., <u>ex officio</u>)
S. M. Luckawecki (Math)	1972	Academic Deans
Regina Thompson (Nurs)	1972	

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

4. Advisory Committee on Ethics and Religion. This committee makes recommendations to the president concerning matters of relationship between the student body and campus and community religious organizations. Committee membership includes the vice president for student affairs, the vice president for academic affairs, the ministers of local churches, and the director of the YMCA. The committee recommends its chairman for appointment by the president.

C. E. Raynal (Chairman)

C. A. Arrington

W. T. Cox (V-P for Student Affairs)

Eugene Copenhaver

Victor Hurst (V-P for Academic Affairs)

P. H. Lewis

B. E. Trent (Director of the YMCA)

Robert Reynolds

5. Faculty Basic Research. This committee has eight faculty members and two ex officio members, the Comptroller and the Graduate Dean, who serves as chairman. The committee controls expenditures of funds granted to it for use by the faculty in carrying out basic research. Committee funds include income from a gift to the University by the C. W. Kress Foundation, an annual grant from the Alumni Loyalty Fund, and a sum from NSF. Members of the faculty who wish to apply for research grants may do so directly to the Graduate Dean. Grants may be made for publication as well as for research itself.

A. E. Schwartz (Chairman, ex officio)

J. R. Haun (Res. Fac. Council)	1970	R. C. Fox (Ent & Econ Zool)	1971
A. K. Jensen (Media Center)	1970	B. E. Gilliland (EE)	1971
D. W. Lyons (TC)	1970	W. E. Bachop (Biol)	1972
M. W. Usrey (Engl)	1970	E. P. Stillwell, Jr. (Phys)	1972
R. H. Barker (TC)	1971	M. A. Wilson (B-F, <u>ex officio</u>)	

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

6. Fine Arts Series. In July 1965 President Edwards appointed a Fine Arts Series Committee to assist in planning, coordinating, and publicizing these activities. By acting as a clearing agency where ideas and information can be exchanged, the Committee hopes that the cultural environment of the University community can be enhanced. It is planned to issue a master calendar of events from time to time and to maintain special announcements for the art exhibitions, the concert series, and the lecture series.

J. H. Butler (Chairman)

T. E. Douglass (Engl)	1970	R. D. Shannon (Econ)	1972
R. R. Owens (Fac. Sen)	1970	H. M. Cox (<u>ex officio</u>)	
A. S. Tombes (Biol)	1970	W. T. Cox (<u>ex officio</u>)	
N. D. Camper (Pl Path)	1971	C. B. Green (<u>ex officio</u>)	
H. G. Spencer (Chem & Geol)	1971	H. E. McClure (<u>ex officio</u>)	
J. L. Young (Arch)	1971	K. N. Vickery (<u>ex officio</u>)	
W. B. Barlage (ChE)	1972	(Three student members will be selected by the Student Senate.)	
G. E. Howard (RPA)	1972		

7. Graduate Council. This Council consists of the Dean of the Graduate School, who acts as chairman, and nine professors nominated for three-year terms by the Graduate Dean. This council recommends Graduate School policy to the President via the Dean of the University

A. E. Schwartz (Chairman).

H. W. Busching (CE & Fac Sen)	1970	A. J. Kaufmann (Arch)	1971
E. M. Lander (Hist & Res. Fac. Council)	1970	G. D. Riggs (IM & Fac Sen)	1972
S. M. Lukawecki (Math)	1970	A. S. Tombes (Biol & Res. Fac Council)	1972
W. C. Godley (AnSci)	1971	J. S. Wolf (Int. Studies)	1972
A. K. Jensen (Media Center & Fac. Sen)	1971		

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

Honors and Awards. This committee is composed of twelve members of the faculty and seven ex officio members: two students (one selected by Phi Kappa Phi, one by Phi Eta Sigma), the Assistant Dean of the University, the Director of Admissions, the Dean of Men, the Dean of Women, and the Director of Student Financial Aid. The committee nominates students for special annual awards for academic achievement and arranges the program for the annual University Honors and Awards Day. The Assistant Dean of the University is chairman ex officio of this committee.

C. B. Green (Chairman, ex officio)

F. Beckwith (ChE)	1970	T. V. Wilson (AgE)	1971
F. Hulbert (CrE)	1970	J. D. Davenport (SocSci)	1972
J. Kaufmann (Arch)	1970	J. D. Fulton (Math)	1972
E. Stenbridge (Hort)	1970	Rose A. Godbout (Nurs)	1972
F. Tisdale (USA)	1970	A. M. Bloss (<u>ex officio</u>)	
N. Tyndall (USAF)	1970	G. E. Coakley (<u>ex officio</u>)	
Barbara W. Morgan (Educ & Fac Senate)	1971	Susan Delony (<u>ex officio</u>)	
D. Shannon (Econ)	1971	K. N. Vickery (<u>ex officio</u>)	
		Two students to be selected for one-year terms.	

Honors Program Council. A Council consisting of nine professors appointed by the Dean of the University. This council recommends policy (including curricula and standards of admission) concerning the University Honors Program. Dr. Norman Olsen, Jr., is chairman of the Honors Program Council.

Norman Olsen, Jr., (Chairman)

P. Ashworth (Biol)	1970	J. F. Pearce (Econ)	1972
J. Skove (Phys)	1970	M. A. Packer (Elem & Sec Ed)	1972
T. Zink (EE)	1970	Peter Lee (Arch)	1972
E. Douglass (Engl)	1971	C. B. Green (<u>ex officio</u>)	
D. Fulton (Math)	1971	K. N. Vickery (<u>ex officio</u>)	
V. Reel (Hist & Fac Sen)	1971		

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

10. Improvement of Undergraduate Teaching. A standing committee, appointed in 1966 for the first time, to recommend ways and means of improving undergraduate teaching and undergraduate educational programs.

F. C. Alley (1971, Chairman)

Robert Hunter (Vis. Studies)	1970	R. H. Barker (Text)	1972
C. M. Jones (Agron)	1970	D. E. Maurer (Ind Ed)	1972
J. W. Kenelly (Math)	1970	Regina Thompson (Nurs)	1972
J. T. Long (EE)	1970	President, sophomore class	
C. O. Caskey (Engl)	1971	President, junior class	
Ruth L. Hays (Biol)	1971	President, senior class	
		Student Senate Appointee	

11. Library. A faculty committee (with the Director of the Library as an ex officio member) which recommends library policy to the Dean of the University. The committee elects its chairman.

(Chairman)

J. L. Idol (Engl & Fac Sen)	1970	D. L. LaTorre (Math)	1971
Ralph Knowland (Arch)	1970	Opal Hipps (Nurs)	1971
J. F. Pearce (Econ)	1970	M. W. Jutras (Agron & Res Fac Council)	1971
L. L. Byrd (Educ)	1971	H. H. Wilson (CrE)	1971
W. E. Castro (EM)	1971	Gordon Gourlay (<u>ex officio</u>)	

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

12. Patent Committee. This committee makes recommendations to the President concerning all University patent matters in accord with the Patent Policy as printed in the Faculty Manual. The Vice President for Business and Finance is chairman ex officio.

M. A. Wilson (Chairman, ex officio)

K. R. Helton (B-F)	1970	M. J. Skove (Phys)	1972
G. C. Kingsland (Pl Path & Chm, Res Fac Council)	1970	Wright Bryan (<u>ex officio</u>)	
Eugene Harrison (ME)	1971	T. D. Efland (<u>ex officio</u>)	
C. M. McHugh (Engr Services)	1971	O. B. Garrison (<u>ex officio</u>)	
		Stan Nicholas (<u>ex officio</u>)	

13. Safety and Fire Prevention Committee. This committee will counsel and support the University Safety Coordinator (Secretary to the Committee) and assist in the development of safety policies and programs.

C. E. Littlejohn (Chairman)

R. C. Fox (Ent & Econ Zool & Res Fac Council)	1970	K. S. Landers (Chem)	1972
W. A. Moore (PhysPlant)	1970	W. E. Berry (Personnel, <u>ex officio</u> , Secretary)	
E. H. McCarter (B-F)	1971	J. E. Hair (Med Center, <u>ex officio</u>)	
D. P. Miller (Phys)	1971	N. R. Page (AgChem, <u>ex officio</u>)	
J. P. Burns (Comm Center)	1972	J. W. Weeden (PhysPlant, <u>ex officio</u>)	
		B. H. Wilhelm (Athletic, <u>ex officio</u>)	

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

14. Schedule. A committee (with the Dean of Admissions and Registration as ex officio chairman) which develops each semester the master schedule of courses taught. Each school or college has appropriate representation.

K. N. Vickery (Chairman)

H. D. Adams (Econ)	C. M. McGee (Engl)
W. C. Bowen (Educ)	C. M. McHugh (EngrSer)
D. W. Bradbury (ME)	C. W. Ulbrich (Phys)
J. H. Couch (IE)	R. F. Nowack (EM)
C. C. Davis (IM)	E. B. Rogers (AgE)
J. N. Calhoun (USAF)	J. R. Salley (Chem)
E. A. Gunnin (Arch)	I. A. Trively (CE)
R. C. Harshman (ChE)	J. V. Walters (Text)
John LaGrone (Math)	C. F. Tisdale (USA)
H. J. Lefort (CrE)	J. B. Whitney (Biol)
W. R. Mattox (Adm)	

15. Special Advisory Committee for Disposal of Poisonous Chemicals

N. R. Page (AgChem), Chairman	J. J. Porter (TC)
Henry Polk (Chem)	Ralph Collins (PhysPlant, <u>ex officio</u>)

16. Special Advisory Committee on Use of Radioactive Materials

J. F. Allen (Chem)	1970	D. W. Lyons (IM & TS)	197
W.H.D. McGregor (For)	1970	J. H. Austin (ESE)	197

FACULTY ACADEMIC STANDING COMMITTEES 1969-70 (Continued)

University Archives. This committee makes recommendations to the Dean of the University concerning acquisition of materials for the University archives. R. S. Lambert, Head, Social Sciences Department, is chairman ex officio.

R. S. Lambert (Chairman, ex officio)

Wright Bryan (Adm), <u>ex officio</u>	Mrs. R.R. Owens (SocSci & FacSen)	1970
W. G. Gourlay (Lib), <u>ex officio</u>	E. M. Lander (Hist & Res Fac Council)	1972

Traffic and Parking Committee

Ralph Collins (Chairman)

G. Guggino (StuAffairs)	J. W. Weeden (PhysPlant)
A. Young (FacSen)	1972

NEWSLETTER PROCEDURES AND DEADLINES

In submitting news items to appear in the Clemson Newsletter, the Office of the President and all areas under the Vice President for Business and Finance, Vice President for Student Affairs and Vice President for Development are requested to send the information directly to the Office of Public Relations.

All areas under the Vice President for Academic Affairs (the various academic colleges and schools) are requested to forward their news items to Claude B. Green, Assistant Dean of the University.

All calendar items must be forwarded to the Office of Public Relations.

The following Newsletter deadlines prevail: items to appear in Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of the month.

CLEMSON UNIVERSITY CALENDAR OF CAMPUS EVENTS

1	Mon.	9:00 a.m.	Educational Council Meeting
4	Th.	8:00 p.m.	Graduate Wives Club - Mrs. Marvin C. Ellison will speak on "So You're New Here!", in YMCA
4	Th.	3:45 p.m.	Woman's Club, Clemson House, reception for newcomers.
11-8	Th.		Arts and Crafts, Penland School of Crafts, Penland, N. C., Lee Hall Gallery
20	Sat.	1:30 EDT	Football - Virginia at Charlottesville, Va.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 3 CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

September 15, 1969

SEP 16 1969

COOPERATIVE PROGRAM ESTABLISHED WITH ANDERSON, CENTRAL WESLEYAN COLLEGES

Clemson University will make computer programming instruction available to faculty and students at Anderson College and Central Wesleyan College during calendar year 1970. The cooperative effort between the neighboring institutions is made possible by a \$20,000 training grant which the National Science Foundation has awarded to Clemson to support the one-year project which begins in January.

The grant will be administered under direction of Dr. C. H. Whitehurst, head of the Department of Industrial Management. He notes that a series of television lectures already being used in a sophomore-level industrial management at Clemson will serve as the core of the classroom instruction at Anderson and Central Wesleyan.



PRESIDENTS GET SHORT COURSE -- Presidents of three institutions of higher education who are planning a cooperative program in computer programming instruction are briefed on the operation of the University's Computer Center by Prof. Charles E. Kirkwood, Jr. (left), Computer Center analyst. Others are (l-r): Dr. Robert C. Edwards of Clemson, Dr. J. E. Rouse of Anderson College and Dr. Claude R. Rickman of Central Wesleyan College.

RECENT LEGISLATION RELATING TO CAMPUS DISORDERS

The General Assembly of the State of South Carolina during its most recent session enacted legislation relating in part to campus disorders as follows:

(1) Section 16-558, Code of Laws of South Carolina 1962, was amended to make as a misdemeanor the use of obscene or profane language on any highway, or at any public place or gathering, or in hearing distance of any schoolhouse or church. Upon conviction, a fine of not more than \$100.00, or imprisonment for not more than 30 days, may be imposed.

(2) Section 16-141.1 of the Code of Laws of South Carolina 1962, was amended to make as a misdemeanor the carrying into any college or university building, or any publicly owned building, or having in possession in the immediate adjacent area of such buildings, any kind of firearms without the express permission of the authorities in charge of the building. Upon conviction, a fine of not more than \$5,000.00 or imprisonment for not more than five years, or both, may be imposed. This provision does not apply to guards, law enforcement officers, members of the armed forces, or students of military science, or married students residing in university housing, if authorized by persons responsible for the security of the buildings.

(3) Section 16-163 Code of Laws of South Carolina 1962, was amended to make as a misdemeanor the entry of any university building by any person for the purpose of destroying records or other property, or who having entered such building does in fact destroy records or property. Upon conviction, a fine of not more than \$5,000.00 or imprisonment for not more than five years may be imposed.

(4) The manufacture or possession of any object or article designed to cause fire by ignition, detonation, or otherwise, for the purpose of damaging persons or property is made a misdemeanor. Upon conviction a fine, or imprisonment, or both, at the discretion of the court may be imposed.

NEW RECORD ALBUM ON SALE BY MU BETA PSI

A new 33 1/3 long-play record album, "The Clemson Tradition" which features songs and music by the University Glee Club and the Marching Band, is on sale by Mu Beta Psi, campus honorary musical fraternity. Albums cost \$3 each and are available at all home football games at special booths located at entrances into Memorial Stadium. Mail orders are accepted by writing: Mu Beta Psi, Department of Bands, Strode Tower, Clemson University, Clemson, S. C. 29631. Include 25 cents for shipping charges on all mail orders.

BLUE CROSS OPENS ANNUAL RE-ENROLLMENT PERIOD

Representatives of Blue Cross - Blue Shield Insurance will be on campus September 25 through October 25, 1969. This is the annual re-enrollment period for group insurance available to all faculty members and other regular employees of Clemson University.

During this re-enrollment period any member of the Blue Cross - Blue Shield program may make changes (additions, deletions, etc.) if desired to fit their individual and/or family needs. Initial applications will also be accepted during this period for those who desire insurance coverage through this plan.

New employees may apply for insurance anytime during their first 31 days of employment. Other employees may apply for insurance or request changes in present coverage only during the annual re-enrollment period, September 25-October 25. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time.

Appointments may be made with the representatives by telephoning Mr. W. J. Stamey in the Personnel Office, Ext. 365.

PRESIDENT'S ADVISORY COMMITTEE ON LONG-RANGE ACADEMIC PLANNING, 1969-1970

W. B. Barlage, Jr. (ChE)	1970	J. T. Ligon (AgE)	1972
M. B. Bishop (Chem)	1970	J. J. McLaughlin (Engl)	1972
S. M. Lukawecki (Math)	1970	Victor Hurst, Dean of the University	
E. S. Olson (Text)	1970	C. B. Green, Asst. Dean of the University	
W. R. Sitterly (Truck Station)	1970	A. E. Schwartz, Dean of the Graduate School and Director of Research	
H. N. Cooledge, Jr. (Arch)	1971	C. V. Aucoin (Phys & Math Sciences)	
C. R. Freeze (Educ)	1971	H. M. Cox (Liberal Arts)	
H. R. Holman (Engl)	1971	G. Labecki (Nursing)	
H. H. Macaulay, Jr. (Econ)	1971	H. F. Landrith (Educ)	
A. S. Tombes (Biol)	1971	H. E. McClure (Arch)	
D. W. Bradbury (Engr)	1972	L. G. Rich (Engr)	
E. J. Hall (Nursing)	1972	W. D. Trevillian (IM & TS)	
E. M. Lander (Hist)	1972	W. H. Wiley (Ag & Biol Sci)	

AGRICULTURAL EDUCATION

Lowery H. Davis (Hd) served as a consultant to a National Seminar on Vocational Teacher Education held at the University of Tennessee, Aug. 11-22. E. T. Carpenter (Assoc Prof) attended the Seminar as the representative from South Carolina.

Lowery H. Davis (Hd) and A. K. Jensen (Assoc Prof & Dir, Voc Educ Media Center) participated in an In-Service Education Workshop for the Instructional Staff at Florence-Darlington Technical Education Center, Aug. 27-28.

CHEMISTRY

Several members of the Department attended the Molecular Spectroscopy Symposium held in Columbus, Ohio, Sept. 1-4. The following papers were presented:

F. B. Brown (Assoc Prof) and Mrs. Nina G. Charles (former Grad Stu), "The Effect of Curvilinear Versus Rectilinear Kinetic Energy Operators on the Vibration-Rotation Eigenvalues of Quasi-Linear Molecules."

C. P. Brown (Grad Stu) and F. B. Brown (Assoc Prof), "Vibrational Assignment and Barrier to Inversion in Dimethyl Amine and Three of Its Deuterium Derivatives."

J. F. Allen (Assoc Prof) spent the summer on a NASA-ASEE Faculty Fellowship with the Preventative Medicine Division at the Lunar Receiving Laboratory, Manned Spacecraft Center, Houston, Tex., conducting isotope tracer and electron microprobe studies.

CHEMICAL ENGINEERING

F. C. Alley (Prof) served as Vice Chairman of a session on photochemistry at the Annual Meeting of Air Pollution Control Association in New York. Dr. Alley was also elected Vice Chairman of the Western South Carolina Section of AIChE.

C. E. Littlejohn (Hd) attended the national meeting of the American Society for Engineering Education at Pennsylvania State University in June.

D. F. Bruley (Assoc Prof) will serve as the Southeastern Regional Chairman of the "Analog/Hybrid Computer Educational Users Group" (A/HCEUG) for 1969.

D. F. Bruley (Assoc Prof) attended a two week short course "Physiological Systems Analysis for Engineers" at the University of Michigan, July 7-18. Dr. Bruley also presented a seminar "Hybrid Computation for Physiological Systems Simulation" at Northwestern University, Aug. 4.

DAIRY SCIENCE

William Chalupa (Assoc Prof) is on sabbatical leave for one year. He will be conducting research in the United States Department of Agriculture, Beltsville, Md., in the area of enzymatic involvement in urea utilization by ruminant animals. Dr. Chalupa will be working with Dr. R. R. Oltjen while at Beltsville.

ECONOMICS

F. Allen Close (Asst Prof) and George Macesich (Florida State University) coauthored the article "Monetary Velocity and Investment Multiplier Stability Relativity for Norway and Sweden" which was published in Saertrykk av Statskonomist Tidsskrift. They also coauthored the article "Comparative Stability of Velocity and the Investment Multiplier for Austria and Yugoslavia," which was published in The Florida State University Slavic Papers, Vol. 3, 1969.

ELEMENTARY AND SECONDARY EDUCATION

Morris A. King (Hd) is serving on a committee appointed by the State of South Carolina Department of Education to recommend standards for universities and colleges preparing public school teachers.

L. Lawson Byrd (Asst Prof) has been appointed as Chairman of the South Carolina Instructional Leadership and Supervision Study, a committee of the South Carolina Association for Supervision and Curriculum Development, which is responsible for obtaining data needed for improving educational leadership. Dr. Byrd has also been appointed to the State Board of the South Carolina Congress for Parents and Teachers.

Gordon Gray (Assoc Prof) conducted inservice training for the Lincoln County, Tenn. public schools on Aug 18 and 19. The theme of the training was Communication as Related to the Total Curriculum. Approximately two hundred teachers were involved in the training. On Aug. 20 and 21, Dr. Gray was consultant to the Pickens County, S. C. Schools. Pickens County is developing a reading program under Title I of the Federal programs which will be in ten of their schools. Dr. Gray will serve as consultant for them throughout the year.

ENGLISH

Coburn Gum (Assoc Prof) is the author of The Aristophanic Comedies of Ben Jonson, a book published as number 40 in a series, Studies in English Literature by Mouton & Co., the Hague. Dr. Gum also published "Lawes Folio" in The Milton Newsletter, vol. 3, no. 1, 1969. Also his translation, from the Czech, of the poems of Dagmar Hilarova, appeared in Poetic Venture for September, 1968 and has been read over the British Broadcasting System.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

E. W. King (Prof) spent two days in July as guest lecturer in bio-mathematics at a summer graduate institute for high school biology teachers held at Kirksville, Mo., by Northeast Missouri State College. Also, Dr. King was coauthor of two papers with two former graduate students of Clemson: "Biology of Melichares" with Philip H. Darst, Annals of the Entomological Society of America, and "Lepidoptera of Carrion" with Jerry A. Payne, Journal of the Lepidopterists' Society.

John Sam Barker, Clemson B.S. graduate of 1947, and former Research Entomologist at the Pee Dee Experiment Station, Florence, died at his home in Newton, Pa., on July 22.

ENTOMOLOGY AND ECONOMIC ZOOLOGY (continued)

T. R. Adkins, Jr. (Prof) attended the conference in Newark, Del. on current research on deerflies and horseflies in Delaware and New Jersey, from July 8-11.

ENVIRONMENTAL SYSTEMS ENGINEERING

The Environmental Systems Engineering Department presented a joint seminar with Water Resources Engineering at 4:00 p.m., Thursday, Sept. 11, at 300 Lowry Hall. The speaker was Mr. Eugene T. Jensen, Director, Middle Atlantic Region, Federal Water Pollution Control Administration. His topic was "Washington Metropolitan Area Enforcement Conference as a Case Study in Water Pollution Control."

A. R. Abernathy (Assoc Prof) and John H. Austin (Prof), members of the South Carolina Board of Certification for Public Water Treatment Plant Operators, attended a meeting of the Board in Columbia on Aug. 27. This meeting was held to draft plans to implement the new law under which wastewater treatment plant operators will be subject to certification by the board.

B. C. Dysart (Asst Prof), T. M. Keinath (Asst Prof), and A. R. Abernathy (Assoc Prof) attended the Nutrient Waste Treatment Seminar in Columbia, Aug. 20. The Seminar was presented by personnel of the Federal Water Pollution Control Administration.

John H. Austin (Prof) attended the annual meeting of the South Carolina Association of Counties in Charleston on Aug. 28-29. He discussed water pollution control measures with the Supervisors of South Carolina Counties.

J. F. Andrews (Hd) has been awarded a \$30,654 grant from the U. S. Public Health Service for continued investigation of an aerobic thermophilic process for waste treatment.

Norbert Matsche (Dept. of Biochemical Technology & Microbiology, Technical University of Vienna, Austria) has joined the department for a year of Postdoctoral Study. He will work with J. F. Andrews on an aerobic thermophilic process for waste treatment.

GEOLOGY

G. M. Haselton (Asst Prof) spent the summer as a Technical Officer with the Canada Geological Survey - Division of Quaternary Research and Geomorphology. He was in charge of a field party studying the post-glacial uplift in the Richmond Gulf area of Hudson Bay.

HORTICULTURE

E. T. Sims, Jr. (Assoc Prof) presented a paper "Uniformity of peach maturation as influenced by 3-chlorophenoxy-alpha-propionamide, succinic acid, 2,2-dimethyl hydrazide and 2-chloroethylphosphonic acid" at the national meeting of the American Society for Horticultural Science, held at Pullman, Wash., Aug. 18-22.

HORTICULTURE (continued)

G. E. Stembridge (Assoc Prof) presented a paper at Pullman, Wash., entitled "Immediate and residual effects of succinic acid, 2,2-dimethyl hydrazide (Alar) on flowering and fruiting of young 'Delicious' apple trees."

H. J. Sefick (Assoc Prof) presented a paper "Long-lived bunch grapes in South Carolina" at the fifth biennial Eastern Bunch Grape Breeders Conference held at the Arkansas Fruit Substation, Clarksville, Ark.

INDUSTRIAL EDUCATION

Alfred F. Newton (Hd) conducted an in-service education program for Orangeburg-Calhoun Technical Education faculty on Aug. 19. The topic of his presentation was "Preparation for Effective Teaching." Dr. Newton also served as consultant to the Pickens County School System on Aug. 20 and worked with Industrial Arts and Vocational Industrial Education teachers.

INDUSTRIAL MANAGEMENT

The Department of Industrial Management will offer basic computer programming instruction in calendar year 1970 (Spring semester 1970, SS 1970 and Fall semester 1970) to selected classes of faculty and students from Central Wesleyan and Anderson Colleges under a \$20,600 NSF computer activities grant. The basic course will be on video tape with supplementary classroom laboratory sessions. A faculty member from each of these neighboring colleges will also complete a summer internship at the Clemson University Computing Center. The cycle of instruction will begin in January 1970. C. H. Whitehurst, Jr. (Hd) is Project Director for this grant.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) had the following paper published: "Kinetics of the Reaction between $MgSO_4$ and Cr_2O_3 " 1013-1022 in Thermal Analysis edited by R. F. Schwenker, Jr., and P. D. Garn, Academic Press, New York (1969). Dr. Hulbert also participated in the recent hearing of the National Commission on Product Safety in Washington, D. C., on the subject of "Safety of Glass Bottles, Aerosol Cans, and Other Containers."

S. F. Hulbert (Hd) was awarded \$27,993 from the National Institute of Arthritis and Metabolic Diseases for the 4th year of the research project entitled "Kinetics of Corrosion of Prosthetic Materials."

J. S. Wolf (Assoc Prof) was awarded \$3,000 from the South Carolina Heart Association, Inc. for the 1st year of a research project entitled "Effect of Surface Pretreatment of Titanium upon the Clotting Time of Physiological Fluids."

INTERDISCIPLINARY STUDIES IN ENGINEERING (continued)

H. R. Bungay III (Prof) has been elected to the office of Chairman-Elect of the Division of Microbial Chemistry and Technology, American Chemical Society.

H. R. Bungay III (Prof) presided at a symposium on "Mixed Microbial Systems" at the American Chemical Society National Meeting held in New York. Papers were presented by Dr. M. J. B. Paynter (Microbiol) and Dr. Bungay, "Bacteriophage Infections in Continuous Culture" and by T. B. Young III (Grad Stu, BioE); Dr. D. F. Bruley (ChE) and Dr. Bungay "A Mathematical Model of the Chemostat Incorporating a Dynamic Relationship Between Microbial Specific Growth Rate and Substrate Concentration."

A grant for \$8,683 has been received for "Simulation of Respiration in Microbial Slime Systems" from F.W.P.C.A. to be conducted by H. R. Bungay (Prof).

MECHANICAL ENGINEERING

James A. Chisman (Assoc Prof) has been elected to the editorial board of the Transactions for the American Institute of Industrial Engineers.

PHYSICS

P. B. Burt (Assoc Prof) with W. E. Gettys (Assoc Prof) and H. W. Graben (Assoc Prof) published in the May 19 Physics Letter an article entitled "Electron Scattering from Real Dipoles." As a consultant at Oak Ridge National Laboratory this past summer, Dr. Burt also published a report entitled "Integral Solutions to the Generalized Helmholtz Equation."

M. J. Skove (Prof), E. P. Stillwell (Prof), C. L. Watlington (Grad Stu), and D. R. Overcash (Grad Stu) were authors of a paper entitled "Orientation Dependence of the Superconducting Coherence Length in Tin Whiskers" which was presented at the International Conference on the Science of Superconductivity held at Stanford University, Aug. 26-29. Drs. Skove and Stillwell and Mr. Overcash attended the conference. Mr. Watlington has been drafted into the Army and is now in Basic Training at Fort Campbell, Ky.

A. L. Laskar (Assoc Prof) acted as a consultant to Picatinny Arsenal Radiation damage scientists through ARO-Durham Army Laboratory Research Cooperative Program this past summer. Cat-ionic and An-ionic diffusion through Potassium-Azide was studied. Also, while he was at Picatinny Arsenal the following two colloquia were given: (a) "Diffusion Mechanisms in Ionic Crystals," Aug. 1, and (b) "Transport Phenomena in Azide-Systems," Aug. 6. At the National Bureau of Standards, Washington, D. C., the following colloquium was given before the Institute for Materials Research on Aug. 15: "Diffusion and Ionic Conductivity in Silver-halides." Dr. Laskar had the opportunity of visiting and having informal talks at the following labs: New York State University Campuses at Albany, Binghamton, Stony Brook; Princeton University, Hoboken Institute of Technology, Naval Research Laboratory, Washington.

PLANT PATHOLOGY AND PHYSIOLOGY

Wesley Witcher (Assoc Prof), member of the Forest Pathology Committee, and Wayne L. Sitterly (Prof, Truck Station, Charleston), member of the Committee on Regulatory Work and Foreign Plant Diseases, participated in the national meeting of the American Phytopathological Society in Spokane, Wash., Aug. 18-21.

N. D. Camper (Asst Prof) went to Washington, Sept. 11-13, on invitation from the National Science Foundation to participate in reviewing project proposals for the summer of 1970.

POULTRY SCIENCE

B. D. Barnett (Hd) attended the annual meeting of the Poultry Science Association, Aug. 4-8, at Colorado State University. He was chairman of the nutrition programs, a member of the resolutions committee and presenter of two papers. M. A. Boone (Prof) and B. L. Hughes (former stu) were coauthors

B. W. Bierer (Prof & Lab Dir of the Livestock-Poultry Health Dept) recently wrote and published a book. Titled "Exploring South Carolina," the book is a compilation of Indian folklore, and the history and geography of the redman's life in this state.

RESEARCH COORDINATING UNIT

John H. Rodgers (Dir) recently attended The Twentieth National Teacher Education and Professional Standards Conference in Washington, D. C., as a representative of The American Association of Teacher Educators in Agriculture and The Council of Teacher Education of The American Vocational Association. Dr. Rodgers also attended the Southern Regional Agricultural Education Conference in Gatlinburg, Tenn. where he presided over a Teacher Education Session.

Robert H. White (Assoc Prof) attended a national institute at the University of Arkansas, Fayetteville, Aug. 4-8, on the topic "Improving Vocational Education Evaluation." More than 35 states were represented among the approximately 100 participants at this meeting.

John H. Rodgers (Dir) and Robert H. White (Assoc Prof) have been serving this summer as vocational education consultants to the York School System in planning expanded offerings in vocational education. During the planning process, Drs. Rodgers and White met with the York Vocational Education Advisory Council comprised of outstanding business and civic leaders from York and Rock Hill.

The Research Coordinating Unit, in cooperation with the Office of Vocational Education, State Department of Education, sponsored a Training Institute for Supervisory Personnel in Vocational Education. Drs. Rodgers and Carpenter of the Research Coordinating Unit participated in the program.

SOCIAL SCIENCES

Ann R. Russell (Instr) has published Les Relations Diplomatiques Entre La France Et Les Etats-Unis, Du 29 Septembre 1938 au 16 Juin 1940 in Revue D'Histoire De La Deuxieme Guerre Mondiale (Presses Universitaires de France).

TEXTILE SCIENCE

John J. Porter (Assoc Prof) attended the Gordon Research Conference on Polymers held at Colby College, New London, Conn., during the week of June 29. Dr. Porter has also received a grant of \$31,539 from the Federal Water Pollution Control Administration, effective Aug. 1, to undertake a study of "The Photo Chemical Degradation of Commercial Dyes."

John J. Porter (Assoc Prof) in conjunction with A. Ray Abernathy (ESE Dept), John Ford (CE) and Donald Lyons (Assoc Prof) received a grant from the Federal Water Pollution Control Administration for \$30,007 for "A Survey of the State of the Art of Textile Waste Treatment."

Donald W. Lyons (Assoc Prof) has been elected Editor of the Automatic Control Division NEWSLETTER, a division of the American Society of Mechanical Engineers. This publication is published semi-annually.

Edward A. Vaughn (Asst Prof) received his Ph. D. degree in July, 1969, from the University of Manchester in Manchester England, after a two year leave of absence from Clemson. His doctoral thesis title was "Fatigue Properties of Textile Fibers." Dr. Vaughn has returned to Clemson to rejoin the textile science faculty. Dr. Vaughn coauthored a paper with Dr. J. W. S. Hearle of the University of Manchester entitled, "Fatigue Testing of Textile Fibers." He presented this paper before returning to Clemson University at the British Society of Rheology Symposium.

Robert H. Barker (Assoc Prof) has received a grant of \$10,000 from the Cotton Producers Institute for supporting research on new chemical compounds that would make cotton fabrics less flammable. With a team of graduate assistants and a post doctoral fellow, Dr. Barker will apply synthesized compounds (primarily new phosphorus ones) to cotton fabrics to determine their effectiveness as fire retardants.

RANGE FIRING

During the week of Oct. 6-10, the Army ROTC Department will conduct range firing for Freshmen at the Pickens Bend Rifle Range, located near Twin Lakes Recreation Area. Firing will be conducted between the hours of 8:00 a.m. and 3:00 p.m. daily. Clemson University faculty and staff are invited to observe.

GRANTS AND GIFTS

Union Carbide Corp., \$750 to Entomology and Economic Zoology, for research conducted involving cotton insect control.

Velsicol Chemical Co., \$300 to Entomology and Economic Zoology, for research conducted on peach insects.

Chevron Chemical Co., \$500 to Edisto Station, to continue research on soybeans.

Fisons Corp., \$250 to Plant Pathology and Physiology, for research on disease control on vegetables.

Shell Chemical Co., \$500 to Edisto Station, for studies involving use of insecticides against soybean insects.

Union Carbide Corp., \$500 to Edisto Station, for research involving use of insecticides against soybean insects.

Mobile Chemical Co., \$150 to Plant Pathology and Physiology, for studies on seed and soil treatments on snapbeans.

Chemagro Corp., \$250 to Edisto Station, for insecticide testing.

Shell Chemical Co., \$1,500 to Entomology and Economic Zoology, for testing of shell insecticide chemicals.

Tuco Products Co., Division of Upjohn, \$1,000 to Animal Science, for studies on progesterins on bovine female.

Chemagro Corp., \$500 to Plant Pathology and Physiology, for research to be conducted by Dr. C. W. Blackmon at the Edisto Station involving diseases on cotton.

United Merchants and Manufacturing, \$5,000, to support Textile Research in College of Industrial Management and Textile Science.

Hercules Inc., \$2,000, as unrestricted grant-in-aid to Clemson's College of Industrial Management and Textile Science.

ROTC INSTRUCTORS ORIENTATION

Colonel George K. Maertens, Professor of Military Science at Clemson University, was a principal speaker at the week long ROTC orientation held at Fort Benning, Ga. Sponsored by Third U. S. Army Headquarters, the orientation was designed to familiarize newly assigned instructors to Colleges and Universities located in the Southeast United States with their duties and responsibilities. Major E. L. Fairbrother, Captain Jay A. McCormack, and Captain Joseph P. Jackson attended from Clemson University.

UNIVERSITY BOWLING LEAGUE

The University Bowling League, consisting of 10 teams, bowls each Wednesday at 6:30 p.m. at Timber Lanes in Seneca. Any faculty or staff member interested in bowling, please contact Alston Steiner, Ext. 253, as soon as possible, since the season has already started.

CALENDAR OF CAMPUS EVENTS

Sept. 15	Mon.	4:00 p.m.	Agronomy Seminar in Room A203, Plant and Animal Science Building. Mr. R. H. Garrison will speak on proposed plant protection legislation.
Sept. 18	Th.	2:00 p.m.	Industrial Management & Textile Science Seminar Sirrine Hall Aud., speaker: Mr. Frank Threatt, Pres., Congaree Iron & Steel Co.
Sept. 18	Th.	4:00 p.m.	Visiting chemistry lecturer, W. E. Thiessen, X-ray Crystallography, Oak Ridge National Laboratory. Room 131, Brackett Hall.
Sept. 20	Sat.	1:30 EDT	Football - Virginia at Charlottesville, Va.
Sept. 26	Fri.		CDA Rat Hop: Dining Hall
Sept. 27	Sat.	1:30 EDT	Football - Georgia at Clemson (IPTAY Day)
Sept. 27	Sat.		South Atlantic Intercollegiate Sailing Association, Clemson - U.S.C. Team Match
Sept. 27	Sat.		CDA Concert: Coliseum
Sept. 30	Tu.	4:00 p.m.	I. O. Sullivan, "Synthesis and Reactions of Aurone Epoxides," University College, Dublin Ireland, will be the visiting chemistry lecturer in Room 131, Brackett Hall.
Sept. 30	Tu.	4:00 p.m.	Biochemistry Seminar - Dr. S. B. Tove of the Biochemistry Department, North Carolina State University, will speak in Room 101, P&AS Bldg. His subject concerns the biohydrogenation of unsaturated fatty acids by rumen bacteria.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 4 CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

October 1, 1969

OCT 1 1969

A REMINDER OF UNIVERSITY POLICY

A statement on academic freedom, promulgated by the faculty and the University and published on Page 32 of the Faculty Manual, includes this pertinent paragraph:

(c) A Clemson University faculty member is a citizen, a member of a learned profession, and an officer of the institution. When he speaks or writes as a citizen, he will be free from institutional censorship or discipline, but his special position in the community imposes special obligations. As a man of learning and an educational officer, he should remember that the public may judge his profession and Clemson University by his utterances. Hence he should at all times be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that he is not an institutional spokesman.

Recently several statements have been made by faculty members in the form of letters to public officials or to newspapers, some of which were written on University stationery and others signed by the individual identifying their official position with the University. The use of official stationery or the identification of the writer in his professional capacity gives rise to an assumption that the writer is acting in his official capacity and that the views expressed are endorsed by the University.

Faculty members in expressing their individual views as citizens are expected to observe the proprieties set forth in the statement on academic freedom, in order to avoid injury or embarrassment to the University.

CORNWELL JOINS PUBLIC RELATIONS STAFF

J. Ross Cornwell of Anderson has been named associate editor of the news bureau in the Office of Public Relations. He is a former city reporter and editorial writer for an Anderson newspaper, The News Leader. He is a graduate of Davidson College where he received the bachelor of arts degree, and is a candidate for the master's degree in journalism from Stanford University.

MEMORIAL MUSIC AWARD ESTABLISHED

A memorial award in music has been established at the University in honor of two longtime Clemson residents who were leaders in promoting the growth of musical activities at the university and in the community. A \$1,000 gift to found The Lena Brayton Eaton-Carrie Hutchins Freeman Award for excellence in performance on the piano was presented to the University by Dr. Howard L. Hunter, dean emeritus of the College of Arts and Sciences. Recipients will be determined in competition to be held each Spring.

All Clemson undergraduates will be eligible to compete. The award will be presented by the Department of Music at the annual Honors and Awards Day convocation of the College of Liberal Arts.

Both Mrs. Eaton and Mrs. Freeman were accomplished pianists, having studied at The New England Conservatory of Music and Converse College respectively. Mrs. Eaton was organist at Fort Hill Presbyterian Church for many years, and Mrs. Freeman held a similar position at Clemson United Methodist Church for about 25 years.

BLUE CROSS OPENS ANNUAL RE-ENROLLMENT PERIOD

Representatives of Blue Cross - Blue Shield Insurance will be on campus September 25 through October 25, 1969. This is the annual re-enrollment period for group insurance available to all faculty members and other regular employees of Clemson University.

During this re-enrollment period any member of the Blue Cross - Blue Shield program may make changes (additions, deletions, etc.) if desired to fit their individual and/or family needs. Initial applications will also be accepted during this period for those who desire insurance coverage through this plan.

New employees may apply for insurance anytime during their first 31 days of employment. Other employees may apply for insurance or request changes in present coverage only during the annual re-enrollment period, September 25 - October 25. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time.

Appointments may be made with the representatives by telephoning Mr. W. J. Stamey in the Personnel Office, Ext. 365.

ADMINISTRATION

James L. Edwards (Prof & Asst to the Dean, Engr) had a nomograph for determining the energy requirements for heating and cooling all-electric buildings published in the Sept. 8, 1969, issue of Electrical World magazine. Prof. Edwards developed this nomograph while serving as a consultant to the South Carolina Electric and Gas Company during the summer of 1968.

AGRICULTURAL ECONOMICS

J. C. Hite (Asst Prof) has been granted leave to join the Regional Science Group at Harvard University as a post-doctoral fellow, effective Sept. 15.

AGRICULTURAL ENGINEERING

Byron K. Webb (Assoc Prof) was announced as an ASAE Paper Award winner by the American Society of Agricultural Engineers. The paper "Some Effects of Dust Resistivity on the Electrostatic Pesticide Application Process," with authorship by Henry D. Bowen and Byron K. Webb, was published in "Transactions of the ASAE" during 1968. A total of 340 papers were evaluated by the selection committee and only eight were selected for awards.

CHEMISTRY

A. R. Pinder (Prof) presented a paper entitled, "Synthetic Studies in the Tremophilane Sesquiterpene Group," at the Symposium on the Chemistry of Essential Oils, 158th National ACS Meeting, New York, Sept. 8-12.

O. J. Jacobus (Asst Prof) has been awarded a \$7,500 grant by the Petroleum Research Fund for a project entitled, "Pyramidal Inversion of Group V Compounds."

ELECTRICAL ENGINEERING

Lyle C. Wilcox (Hd) attended the National Invitational Conference of Simulation Councils at Captiva Island, Fla., on Aug. 20-23. The conference was through invitation only and included twenty-five participants coming from fields of government, industry, and education. Technical seminars included discussions of computing and simulation in educational environments, evolving problems and concepts in the management of computing facilities, analog/hybrid hardware and software requirements for the '70's, and methodologies of escalating common computing problems to ultra high speed computing execution. The proceedings of the conference will be reported in a forth-coming issue of Simulation.

Lyle C. Wilcox (Hd) has just been elected as regional chairman of Simulation Councils, Inc. Dr. Wilcox has been active in this group for several years contributing papers and holding offices within the organization. The chairman of Simulation Councils schedules technical meetings, decides on host institutions for the meetings, and acts in the general interest of promoting the concepts of mathematical modeling and simulation within the region.

ELECTRICAL ENGINEERING (continued)

B. E. Gilliland (Assoc Prof) participated as a member of a three-man panel discussion on Computer Simulation at the Digital Equipment Corporation Users Group meeting in Atlanta, Ga., Apr. 22. M. L. Wolla (Assoc Prof), T. L. Drake (Assoc Prof), A. O. Bishop (EE Asst), and C. F. Lam (Grad Asst) also attended the meeting.

J. W. Lathrop (Prof) presented an invited lecture, sponsored by the Boston Section of the IEEE, "Design Optimization for Monolithic Integrated Circuits," at M.I.T., Cambridge, Mass., Apr. 22. On May 6, he presented a seminar, "LSI, Design of the Future," at North Carolina State University, Raleigh, N. C.

R. W. Gilchrist (Prof) attended the Western Electric Education/Industry Seminar on Apr. 29 through May 1.

The Electrical Engineering Department has just received a grant of \$6,000 for the study of "Water Resource Pollution Signature Identification by Digital Computer Analysis of Remote Infrared Sensor Spectral Intensities," effective July 1, 1969.

The Electrical Engineering Department has just received two grants from the National Science Foundation for equipment to be used in undergraduate laboratories. One program involves an expenditure of \$18,000 for equipment necessary to design and fabricate integrated circuit modules using thick film techniques. The second grant is to be used in setting up a medical instrumentation laboratory. Ten thousand dollars will be spent for electronic equipment used in the recording and display of electroencephalographs, electrocardiographs, heart sounds, blood pressures and flow rate, physiological impedance, and remote telemetry. An undergraduate laboratory sequence open to certain nonelectrical engineering majors will be structured around this equipment.

The following papers have been presented by members of the Department of Electrical Engineering:

"Computer Abstracted Features of Thyroid Scans for Computer Classification," Perry Sprawls, Ph.D.; R. S. Colvin, M.D.; and L. C. Wilcox, Ph.D.; presented at Ninth Annual Meeting, Southeastern Chapter, The Society of Nuclear Medicine, Atlanta, Ga., 1968.

"The Generation of Radioisotope Distribution Pattern Displays with a Small Laboratory Computer," Perry Sprawls, Ph.D.; M. L. Wolla, Ph.D.; and T. L. Drake Ph.D.; presented at Ninth Annual Meeting, Southeastern Chapter, The Society of Nuclear Medicine, Atlanta, Ga., 1968.

ELEMENTARY AND SECONDARY EDUCATION

Barbara W. Morgan (Asst Prof) participated in in-service training for teachers at Whitten Village on Sept. 5. Her lectures were directed toward teaching reading to mentally retarded pupils. Dr. Morgan was also consultant for the summer Remedial Reading program in Oconee County public schools.

LEMENTARY AND SECONDARY EDUCATION (continued)

An invitational conference on Dyslexia was held at Appalachian State University in August. Barbara W. Morgan (Asst Prof) was chairman for a discussion group, following lectures by Dr. Jules Abrams.

Freshman athletes participated in a Reading Improvement Program during the second summer session. This program was designed and supervised by Barbara W. Morgan (Asst Prof), with Miss Terry Brogdon, graduate assistant in reading, as the teacher. The program will continue during the academic year with Mrs. Terryl Carpenter as teacher.

ENGINEERING MECHANICS

W. E. Castro (Assoc Prof) attended a symposium on turbulence measurements in liquids at the University of Missouri, Rolla, Sept. 8-9.

Paul B. Zielinski (Assoc Prof) co-authored a closure discussion entitled "The Effect of Viscosity on Vortex-Orifice Flow," ASCE Hydraulic Division Proceedings Journal, Vol. 95, No. HY5, Sept., 1969.

ENGLISH

R. J. Calhoun (Alumni Prof) has an essay on "Literary Criticism in Southern periodicals during the American Renaissance" published in the Emerson Society Quarterly for June, 1969. He also has an article on "The Protest Poetry of Robert Ly" in the Tennessee Poetry Journal, Winter issue, 1968-69.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Richard C. Fox (Prof) has been elected to serve as Chairman of the Southern Forest Insect Work Conference for a two-year term. The 1970 meeting of this group will be held in Charleston in August.

The project, "Importance of Deer Flies and Horse Flies in South Carolina with Emphasis on the Coastal Region (Diptera:Tabanidae)" submitted by T. R. Atkins, Jr. (Prof) has been approved for funding by the Belle Baruch Foundation for 1969-70 in the amount of \$8,116.

The project, "The Biology of Pine Reproduction Weevils in Coastal South Carolina" submitted by Richard C. Fox (Prof) has been approved for funding by the Belle Baruch Foundation for 1969-70 in the amount of \$9,016.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Asst Prof) attended the 158th National meeting of the American Chemical Society held in New York on Sept. 7-12.

ENVIRONMENTAL SYSTEMS ENGINEERING (continued)

A. R. Abernathy (Assoc Prof) and John H. Austin (Prof) represented Clemson University at the annual business meeting of the South Carolina Water and Pollution Control Association at Pine Island on Friday, Sept. 19. Austin reported on the progress made in the training of water and wastewater treatment plant operators, and the preparation of training manuals for these operators.

MATHEMATICS

Frank M. Cholewinski (Assoc Prof), John Kenelly (Prof & Hd), and Andrew F. Sobczyk (Prof) attended the American Mathematical Society and Mathematical Association of America national meeting in Eugene, Ore., Aug. 23-30. Dr. Sobczyk represented the southeastern section of the Mathematical Association of America.

Kursheed Alam (Assoc Prof), C. Bradley Russell (Asst Prof), and K. Ted Wallenius (Assoc Prof) attended the Institute of Mathematical Statistics and the American Statistical Association meetings in New York, Aug. 17-23.

Bobby J. Prochaska (Asst Prof) and K. Ted Wallenius (Assoc Prof) attended the Southern Regional Education Board, Committee on Statistics, Summer Research Conference in St. Petersburg, Fla., July 27-Aug. 1, and presented invited papers. Dr. Prochaska's paper was entitled "Estimation in a Dynamic System - Kalman and Kalman Type Filters." Dr. Wallenius' paper was entitled "Sequential Reliability Assurance."

Renu Laskar (Assoc Prof) authored a paper entitled "Eigenvalues of the adjacency matrix of cubic lattice graphs" which appeared in Pacific Journal of Mathematics, Volume 29, Number 3, June, 1969.

MECHANICAL ENGINEERING

J. K. Johnson (Asst Prof), Chairman; Craig Brandon (Assoc Prof), Secretary-Treasurer; and A. C. Elrod (Assoc Prof), Faculty Advisor attended the Regional Administrative Conference of the American Society of Mechanical Engineers in Winston Salem, N. C. on Sept. 5 and 6.

J. K. Johnson (Asst Prof) was presented an award at the Regional Administrative Conference of the American Society of Mechanical Engineers. The award was from the National Executive Council of ASME for distinguished service as Chairman of the Regional College Relations Committee for 1968-1969 and as Faculty Advisor to the Clemson University Section for 1965-1969.

MILITARY SCIENCE

Joseph P. Jackson, Jr. (Asst Prof) spoke to the Baptist Student Union, Clemson, on Sept. 7. The topic of his talk was "The Christian in Vietnam." Captain Jackson is a volunteer coach and scout for the Pendleton High School football team, (The Bulldogs), and is the University faculty advisor for the Sky Diving Club (The Dixie Sky Divers).

MILITARY SCIENCE (continued)

John F. Hare (Asst Prof) spoke on Military Opportunities at the Student Opportunities Symposium recently held in Brackett Auditorium.

MODERN LANGUAGES

Edwin P. Arnold (Instr) was appointed by the South Carolina Department of Education to serve as Chairman of the Committee to Develop Language Tests for Use in Testing Teachers in South Carolina. The initial meeting of this committee was held at Converse College, Spartanburg, S. C., May 24.

PHYSICS

A. L. Laskar (Assoc Prof) is the senior author of a paper published in the August issue of the Journal of Physics and Chemistry of Solids. The title is "Diffusion of Strontium Ion in Silver Chloride."

J. L. Ging (Assoc Prof), C. W. Ulbrich (Asst Prof), and A. A. Kloba (former Grad Stu) have published an article in the June issue of Physics Letters entitled "A Stimulated Reflection Experiment to Demonstrate Correlation Between Photos from Independent Laser Beams."

F. J. Keller (Asst Prof) was a Visiting Research Professor with the Physics Department at the University of Delaware during the summer. While at the University of Delaware, Dr. Keller did experimental work on radiation damage in alkali halides.

RESEARCH COORDINATING UNIT

John H. Rodgers (Dir) attended an invitational seminar sponsored by the American Vocational Association to develop concepts beneficial to preparing the Nation's manpower resources. Dr. Rodgers represented the AVA Council on Teacher Education.

John H. Rodgers (Dir) and Robert H. White (Assoc Prof) for the past several months have collaborated with the School Planning Laboratory, University of Tennessee, in developing techniques to determine effective vocational programs and facilities. During July, R. H. White visited several exemplary elementary and secondary school facilities throughout Tennessee where new concepts of design had been employed.

SOCIAL SCIENCES

Spurgeon Cole (Asst Prof) has published (in cooperation with Robert L. Williams and Charles H. Moore), "Parental of Rorschach Cards IV and VII Among Adjusted and Maladjusted Subjects," in the Journal of General Psychology, 1969.

SOCIAL SCIENCES (continued)

Bernard Caffrey (Asst Prof) read "Lack of Bias in Student Evaluation of Teachers," at the American Psychological Association annual meeting in Washington, D. C., Sept. 1. It will be published in the A.P.A. Proceedings, 1969. Dr. Caffrey has also published "Behavior Patterns and Personality: Characteristics Related to Prevalence Rates of Coronary Heart Disease," in Journal of Chronic Diseases, 1969.

MINUTES OF THE FACULTY SENATE, AUGUST 26, 1969

President John Pearce presided over the first meeting of the Clemson University Faculty Senate on August 26 in Olin Hall.

Minutes of the April 15 meeting were approved with the following corrections: Senate membership stands at 48, not 49; and the three proposals mentioned as having been referred to committees had not been so referred.

Professor R. P. Leemhuis and Dr. J. H. Butler were welcomed to fill unexpired terms of two members on leave.

President Pearce reported that the Executive Committee had decided not to assign Professor W. C. Capel's proposals to committee. Capel's proposals concerning secretarial aid and Senate presidential attendance at various committee meetings did not elicit further action; however, Professor W. E. Gettys moved that the resolution calling for the appointment of a voting member of the Board of Trustees from the Faculty Senate be referred to committee.

The following Senate standing committee chairmen were recognized: (1) D. L. Handlin, Admissions and Scholarship, (2) B. J. Prochaska, Policy, and (3) M. K. Richardson, Welfare. Dr. Richardson reported that his committee plans to study the "Notable and Quotable" article and subsequently make recommendations.

Professor J. F. Allen distributed a resolution for future consideration concerning the "removable F."

President Pearce then presented a comprehensive review of the history of past discussions concerning a merger of the Research Faculty with the Faculty Senate, citing many reasons for his favoring such a merger. Among the pro arguments presented by Dr. Pearce were the following: (1) Self study and accreditation (1970-72) provide an opportune time for merger, (2) Merger could well precede revisions in representation structure of both bodies, (3) Dichotomy between research and teaching faculty does not exist anymore, (4) The interests of the two groups coincide for the most part, (5) Research per se could be represented by a standing committee of the Faculty Senate, and (6) Disproportional representation could be avoided by using a representation formula which would safeguard fair representation from various schools and colleges.

Dr. Pearce asked that members be prepared to vote at the next meeting on whether to refer this matter to committee.

Professor R. T. Sorrells moved for adjournment at 5:15 p.m.

CALENDAR OF CAMPUS EVENTS

Oct.	1-4	W-Sat.	8:00 p.m.	Clemson Little Theatre, Food Industries Aud.
Oct.	2	Th.	8:00 p.m.	Graduate Wives Club - Dr. Tom Vestal, Gynecologist, will speak on "Feminine Facts and Fantasies," in the YMCA.
Oct.	2	Th.	3:45 p.m.	Woman's Club meets at Clemson House for program on handcraft.
Oct.	3	Fri.	2:00 EDT	Freshman Football - Georgia at Clemson
Oct.	3	Fri.	3:00 p.m.	Soccer - Maryland at College Park, Md.
Oct.	3	Fri.	11:00 a.m.	A-203, P&AS Bldg., Lecture: "Fertilizers and the Economic Development in South and Central America," by W. H. Clayton, Retired Vice President of W. R. Grace and Company, N. Y.
Oct.	4	Sat.	2:00 EDT	Football - Georgia Tech. at Atlanta, Ga.
Oct.	4	Sat.		South Atlantic Intercollegiate Sailing Association, Citadel Invitational
Oct.	4-5	Sat.- Sun.		Carolinas Geology Society Meeting, Clemson House
Oct.	5	Sun.	2:00 p.m.	Soccer - Virginia at Charlottesville, Va.
Oct.	6	Mon.	9:00 a.m.	Educational Council Meeting
Oct.	6	Mon.	8:00 p.m.	Concert - Brussels Chamber Orchestra, Littlejohn Coliseum
Oct.	8-11	Wed.- Sat.	8:00 p.m.	Clemson Players, Daniel Hall Theatre
Oct.	8	Wed.		Miss Clemson Pageant: Coliseum
Oct.	8	Wed.	4:00 p.m.	Textile Science Seminar - Joseph G. Sayre, Deering Milliken Research Corp; Spartanburg, S. C. : "The Scanning Electron Microscope and its Application to Textile Research" - 301 Sirrine Hall
Oct.	9	Th.	4:00 p.m.	Chemistry speaker: J. C. Fanning, Inorganic Chemistry, Clemson University - Brackett Hall, Room 131
Oct.	9	Th.	4:00 p.m.	Physics Seminar in Room 101, Kinard Laboratory. Dr. John Blakemore of Florida Atlantic University will speak on "Recombination Problems in Semiconductors."

CALENDAR OF CAMPUS EVENTS Cont.

Oct. 10	Fri.		Dental Aptitude Test, Room 20, Tillman Hall
Oct. 10	Fri.	2:00 EDT	Freshman Football - USC at Clemson
Oct. 10	Fri.	3:30 p. m.	Soccer - Emory Invitational Tournament at Atlanta
Oct. 11	Sat.	1:30 CDT	Football - Auburn at Auburn, Ala.
Oct. 11	Sat.		South Atlantic Intercollegiate Sailing Association University of Virginia Invitational
Oct. 11- Nov. 9	Sat.		The Grand Design (Circulated by the Smithsonian Institution) - Lee Hall Gallery
Oct. 14	Tu.	4:00 p.m.	Chemistry speaker: P. G. Gassman, Ohio State University - "Recent Advances in Small Ring Chemistry," Brackett Hall, Room 131.
Oct. 15	Wed.	3:00 p.m.	Soccer - UNC at Chapel Hill, N. C.

CAMPUS CONSTRUCTION, RENOVATIONS

Ralph S. Collins (Dir Physical Plant Div) reports the following campus construction and renovations:

-A complete campus-wide fire alarm system is being installed. It is a coded system with signal re-outs located at the Fire Station. When installation is completed, all personnel will be given necessary instructions on how to locate and activate the input signal stations in their buildings.

-Subsurface investigations are under way on the site west of Sirrine Hall for West Campus High Rise Residence Hall #1. Tentative plans call for this dormitory to be ready for occupancy by the fall semester of 1971.

-Facilities for off-campus parking of resident student vehicles are being developed south of Cemetery Hill. Plans call for the lots to be hardsurfaced, landscaped and lighted. Work will proceed in phases and as funds become available.

-Complete renovations, including new furniture and air conditioning, of Donaldson, Bowen, Wannamaker, Bradley, and Norris Halls have just been completed.

WOODROW WILSON NATIONAL FELLOWSHIPS

The Campus Representative of the Woodrow Wilson National Fellowship Foundation at Clemson University is Dr. Claud B. Green, Assistant Dean of the University. The Regional Chairman for this area is Dean Bond Fleming, Oxford College of Emory University, Oxford, Georgia 30267.

The following "Information for Nominators" is taken from the current brochure.

Every candidate must be nominated by a faculty member no later than October 20, 1969.

The candidate's name, college, current mailing address, and proposed field of graduate study should be sent to the appropriate Regional Chairman as early as possible in the academic year, but in no case later than October 20, 1969.

Application forms will be sent to the candidate upon receipt of the nomination and must be returned to the Regional Chairman by November 15, 1969.

Any member of the academic profession in any college or university in the United States or Canada may nominate a candidate for Woodrow Wilson Designation if he or she believes that the candidate gives promise of becoming a valuable member of the profession. A nominator should weigh the student's qualifications: promise as a teacher, native ability, preparation for graduate study leading to the Ph.D. degree, competence in foreign languages or other required subjects such as mathematics, ability in writing essays and reports on independent work accomplished.

Candidates should file all required documents with the Chairman of their Regional Committee in October or early November, and no later than November 15, 1969.

By the end of December, 1969, a candidate must have applied to at least three graduate schools in the United States or Canada. Interviews of selected nominees are held in January. Graduate departments will be notified of Designations before the end of January, 1970.



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MATHEMATICS DECISION SCIENCE COLLOQUIUM SERIES

The Department of Mathematics is continuing its series of research colloquia on mathematical models and methods in the Decision Sciences - a field which encompasses the broad areas of probability theory and models, mathematical statistics, operations research, computer science, and mathematical models in economics and the behavioral sciences.

The format for the colloquium series will be as flexible as the topical areas are diverse. They will range from formal presentation of completed research through survey papers on state-of-the-art of important emerging techniques to discussion of partially completed research and half-baked ideas in a workshop-type atmosphere. Speakers will range from well-known scholars to graduate students.

The colloquium will normally meet on Thursday afternoons at 4:00 p.m. in Room 1, Physics, with exceptions made to accommodate special guest speakers whose availability would prohibit a Thursday meeting.

Communications concerning the colloquium series should be directed to Dr. K. T. Wallenius, Department of Mathematics.

CLEMSON TO COSPONSOR WATER POLLUTION WORKSHOP

A workshop to help improve educational methods for teaching operators of water pollution control facilities will be cosponsored by Clemson University at the American Hotel in Atlanta, Ga., Nov. 3-5.

A \$13,900 grant to Clemson's environmental systems engineering department by the Federal Water Pollution Control Administration will support the three-day meeting for officials who supervise the training of environmental technicians for wastewater treatment plants.

Instruction will focus on potential use of newer training techniques including application of systems analysis to design of educational methods, programmed learning, educational TV, and computer-based instruction. Sessions also will be devoted to current educational methods such as correspondence courses, short schools conducted at universities, and on-the-job training.

ADMINISTRATION

Wallace D. Trevillian (Dean, IM & TS) will deliver an address entitled, "The College as a Source of Manpower" at the American Association for Textile Technology at their symposium which will be held at the Poinsett Hotel in Greenville on Oct. 23. The theme of the symposium is "Technology: The Key to Getting and Holding the Best Employees."

CERAMIC ENGINEERING

G. C. Robinson (Hd) was an invited lecturer to a symposium on Ceramics at Rutgers University on Sept. 4.

CHEMICAL ENGINEERING

W. F. Beckwith (Assoc Prof) attended a program design short course on Computerized Models for Plastic Processing on Sept. 9 at Parkersburg, W. Va.

R. C. Harshman (Prof) attended a conference, sponsored by Washington University, St. Louis, Mo., on Case Studies for Teaching Plant Design. The conference was held Sept. 10-13 at Washington University's residential conference center, Broomwoods.

The Chemical Engineering Department received an unrestricted gift of \$5000 from Union Carbide Corporation for the year 1969-70.

CIVIL ENGINEERING

W. H. Wisely (Exec Sec, American Society for Civil Engineers) spoke at the joint meeting of the Northwest Branch ASCE and the Student Chapter ASCE held at the Clemson House on Sept. 30. Mr. Wisely's topic was "New Dimensions in Engineering."

ECONOMICS

Lawrence Fisher (Assoc Dir of The Center for Research in Security Prices, University of Chicago) presented a seminar for Clemson faculty and graduate students at 3:00 p.m. and a public lecture at 8:00 p.m. on Oct. 8 on "Results of Research on Variability of Investment Returns."

ELEMENTARY AND SECONDARY EDUCATION

Thomas H. Parry (Asst Prof) is serving on the committee to study the possible merger of the South Carolina Education Association's Department of Pupil Personnel and Guidance and the South Carolina Personnel and Guidance Association. Dr. Parry also served as a consultant to the State Department of Education's Eighteenth Annual Statewide Guidance Conference.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) served as director of the 1969 Short School of the South Carolina Water and Pollution Control Association in Sumter on Sept. 22-23. The school is held annually to assist operators of water and wastewater treatment plants with their efforts toward passing their certification examinations.

FORESTRY

K. Lehotsky (Hd) and M. H. Bruner (Assoc Prof) have been cited individually by the Society of American Foresters "In recognition by the Council of his professional qualifications and his adherence to the Code of Ethics of the profession of forestry." Dr. Lehotsky was elected a member in 1932; Prof. Bruner in 1933. The citations were presented by W. D. Hagenstein, President, Society of American Foresters.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) presented a paper entitled "Advances in Biomaterials" at the Annual Meeting of the American Chemical Society held in New York City, Sept. 11. Dr. Hulbert also participated in the September Engineering and Urban Health Science Study Section Meeting of the Environmental Control Administration in San Francisco, Calif.

J. J. Klawitter (Grad Stu), S. F. Hulbert (Hd), F. A. Young, Jr. (Asst Prof), and C. D. Talbert (Grad Stu) were authors of the paper "Ceramic-Metal Composites for Orthopedic Applications" presented at the Fall Meeting of the Ceramic-Metal System Division of the American Ceramic Society, Cleveland, Ohio, Sept. 9.

S. F. Hulbert (Hd), C. C. Fain (Assoc Prof, CrE), M. M. Cooper (Texas Instruments, Houston, Tex), D. Ballenger (Grad Stu), and C. W. Jennings (Grad Stu) were authors of a paper entitled "Improving Package Disposability" presented at the First National Conference on Packaging Wastes, San Francisco, Calif., Sept. 24.

MILITARY SCIENCE

Charles W. Ruple (Asst Prof) presented an illustrated lecture to the Clemson Poultry Club on Sept. 23. The topic of his lecture and the subsequent question and answer period was "Vietnam - Its Culture and People."

MUSIC

John H. Butler (Hd) has an article, "Concert Band: Real Hope for New Music" in the September issue of The Music Journal.

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Hd) has been appointed to the Board of Directors of the Society of Park and Recreation Educators for a two-year term. The appointment was made during the annual Congress for Parks and Recreation meeting in Chicago. Dr. Brantley also participated in a Position Paper Institute as a member of a reactor panel during the Congress for Parks and Recreation. Later in the Congress he served as a member of a panel for an educational session dealing with the topic, "Recreation Education: A Day of Decision."

TEXTILES

John J. Porter (Assoc Prof) has been invited to give a seminar entitled, "The Coordination Chemistry of Some Aromatic Azo Compounds" for the Chemistry Department of Georgia State College at Atlanta, Ga., on Oct. 17.

J. M. Butler (Grad Stu) and D. W. Lyons (Assoc Prof) are authors of a paper entitled, "An Establishment of the Operating Ranges of the Uster Evenness Tester and Imperfection Indicator," presented by Mr. Butler at the Textile Quality Control Conference in Charlotte, N. C. on Sept. 18-19.

D. W. Lyons (Assoc Prof) and W. P. Greene (Grad Stu) wrote a paper entitled, "The Relationship Between Draft Force During Spinning and Optimum Spinning Efficiency" presented by Dr. Lyons at the Sept. 18-19, Textile Quality Control Conference in Charlotte, N. C.

Robert H. Barker (Assoc Prof) along with J. H. Wall (former Grad Stu) and R. T. O'Connor (U. S. Dept of Agric) had a paper entitled, "Intermediate Reaction Products of Dimethylolethyleneurea and Cellulose" presented by Mr. Wall at the 158th meeting of the American Chemistry Society in New York on Sept. 10.

MINUTES OF THE AUGUST RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its August meeting at 4:00 p.m., August 19, 1969, in Room 28 Tillman Hall.

The Council considered and passed the following resolution relative to the University's retirement policy (Jutras):

It is the consensus of the Research Council that:

(1) After the age of 65, Clemson University teaching and/or research faculty members be appointed annually, for full or part-time employment, if requested by the employee and if the University administration concurs.

(2) In no case should such annual reappointments be made after the age of 62, in order to comply with state statutes.

(3) The retirement policy presently in force is difficult to interpret due to the vagaries of interpretation inherent in the three "conditions" used as guidelines in the retention of over-65 employees.

(4) The compulsory retirement of an individual at age 65 often results in the loss to the University of years of expertise. This is a loss the University cannot afford.

R. F. Borgman suggested that a center be established on the campus for liquid scintillation counting. A survey will be undertaken to determine the need for such a facility, and whether additional services, such as electron microscopy, might be incorporated into such a center.

The Policy Committee was requested to look into various proposals regarding on-thesis graduate degrees at Clemson, and to submit a report at the September meeting.

CALENDAR OF CAMPUS EVENTS

Oct. 16	Th.	2:00 p.m.	Industrial Management & Textile Science Seminar, Sirrine Hall Aud. Speaker: Mr. R. Buford Brandis, Director of International Trade, American Trade & Manufacturing Institute.
Oct. 17	Fri.	3:00 EDT	Freshman Football - Duke at Durham, N. C.
Oct. 17	Fri.	8:00 p.m.	CDA Concert - Coliseum
Oct. 17	Fri.		Tigerama - Memorial Stadium
Oct. 18	Sat.	1:30 EDT	Football - Wake Forest at Clemson (Homecoming-Classes suspended)
Oct. 18	Sat.		South Atlantic Intercollegiate Sailing Association, Davidson College Invitational

Oct. 18	Sat.	10:30 a.m.	Soccer - The Citadel at Clemson
Oct. 18	Sat.	8:00 p.m.	CDA Homecoming Concert in the Coliseum
Oct. 18	Sat.		After homecoming game - Tiger Brotherhood Drums and guests invited -- Brotherhood Lounge, Wannamaker Hall.
Oct. 20	Mon.	4:00 p.m.	Agronomy Seminar - Speaker: D. Leslie Tindal, President of American Soybean Association; P&AS A-203.
Oct. 21	Tu.	4:00 p.m.	Biochemistry Seminar - Dr. Francis Kenney, Biology Division, Oak Ridge National Laboratory, will give a lecture titled, "Hormonal Regulation of Gene Expression." Room 101 P&AS Building.
Oct. 22	Wed.	8:00 p.m.	Concert - Osipov Balalaika Orchestra of Moscow Littlejohn Coliseum
Oct. 24	Fri.	8:00 p.m.	Concert (Free) - U. S. Army Field Band, Littlejohn Coliseum
Oct. 24	Fri.	2:00 EDT	Freshman Football - Georgia Tech at Clemson
Oct. 24	Fri.	3:00 p.m.	Soccer - Duke at Clemson
Oct. 24	Fri.	4:00 p.m.	Textile Science Seminar - Speaker: W. Lincoln Hawkins, Bell Telephone Laboratories, Inc., Murray Hill, New Jersey - "Mechanisms of Polymer Degradation and Oxidation" -- 301 Sirrine Hall
Oct. 25	Sat.	1:30 EDT	Football - Alabama at Clemson (Dad's Day)
Oct. 25	Sat.		South Atlantic Intercollegiate Sailing Association U. S. C. Invitational
Oct. 25	Sat.		Graduate Record Examination, Room 20, Tillman Hall
Oct. 27	Mon.	4:00 p.m.	Agronomy Seminar - Speaker: Mr. Stanley McElroy, Influence of formulation on the performance of soil-applied herbicides -- P&AS A-203
Oct. 29	Wed.	3:00 p.m.	Soccer - Furman at Clemson
Oct. 31	Fri.	3:00 EST	Freshman Football - Wake Forest at Winston-Salem, North Carolina
Oct. 31	Fri.		CDA Halloween Dance: Dining Hall
Oct. 31	Fri.	4:00 p.m.	Textile Science Seminar - Speaker: Prof. William J. Bailey, University of Maryland - "Synthesis of Ladder and Spiral Polymers" -- 301 Sirrine Hall
Nov. 1	Sat.	10:00 a.m.	Textile Science Seminar - Speaker: Prof. William J. Bailey, University of Maryland - "New Synthesis of Polypeptides" -- 110 Sirrine Hall





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ELEMENTARY AND SECONDARY EDUCATION

Gordon W. Gray (Assoc Prof) conducted in-service training for Anderson School District No. 2 on Aug. 20. He is helping the school district to develop a comprehensive reading program for grades K-8. Dr. Gray also spoke to the Piedmont Council of the International Reading Association in Spartanburg on Sept. 30. The topic was: "Psychology of Learning and Its Relation to Reading."

West Georgia College in conjunction with the Georgia University system has initiated a program whereby all Head Start teachers in the state are given the opportunity to obtain a college degree. The program is unique in that the normal college entrance requirements are dropped for these teachers. Gordon Gray (Assoc Prof) worked with West Georgia College on Sept. 15, 16, and 17 in organizing this program.

GEOLOGY

The geology faculty was host to the meeting of the Carolina Geological Society, Oct. 4-5. Approximately 120 geologists from North and South Carolina and other southern states attended the meeting which included a field-trip study of the geology of Northwestern South Carolina, conducted by V. S. Griffin (Assoc Prof) and R. D. Hatcher (Asst Prof).

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Hd) and John H. Austin (Prof) attended the Workshop on Operator Training at the Annual Meeting of the Water Pollution Control Federation in Dallas, Tex., Oct. 4-10. Dr. Andrews and Dr. Austin also attended the board meeting of the American Association of Professors in Sanitary Engineering (AAPSE) in Dallas, Tex. Dr. Andrews is a member of the Board of Directors of AAPSE and Dr. Austin is editor of their newsletter.

A. R. Abernathy (Assoc Prof), B. C. Dysart (Asst Prof) and T. M. Keinath (Asst Prof) attended the 42nd Annual Conference of the Water Pollution Control Federation, Oct. 6-9. Dr. Dysart presented a paper at the conference. Dr. Keinath met with the Research Committee of the WPCF. They also attended the semi-annual meeting of the American Association of Professors in Sanitary Engineering.

J. F. Andrews (Hd) and J. O. Bryant, Jr. (Grad Stu) presented a paper entitled "Direct Digital Control of Conventional Wastewater Renovation Systems" at the Annual American Society of Civil Engineers Meeting at Chicago, Ill., on Oct. 16.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) has accepted an invitation to become a member of the editorial board of the Journal of Biomedical Materials Research.

F. A. Young (Asst Prof) and D. E. Huff (Grad Stu) participated in the International Symposium on Dental Materials Research, Oct. 6-8, at the National Bureau of Standards, Gaithersburg, Md.

The following papers have been presented by members of the Division of Interdisciplinary Studies:

F. A. Young (Asst Prof), S. F. Hulbert (Hd), J. J. Klawitter (Grad Stu), C. D. Talbert (Grad Stu), and R. S. Mathews (Assoc Prof), "Basic Investigation Into the Potential of Ceramic Materials for Surgical Implants," at 22nd Pacific Coast Regional Meeting of the American Ceramic Society, Seattle, Wash., Oct. 15.

F. A. Young (Asst Prof), S. F. Hulbert (Hd), and C. N. Wilson (Grad Stu), and B. F. Lawson and J. R. Schmidt of the Medical College of South Carolina, "Replacement of Teeth with Ceramic Replicas," at the Annual TMS-AIME Fall Meeting, Philadelphia, Pa., Oct. 16.

J. J. Klawitter (Grad Stu), S. F. Hulbert (Hd), and C. D. Talbert (Grad Stu), and C. T. Fitts of the Medical College of South Carolina, "Application of Porous Ceramic to Problems in Orthopedic Surgery," at the Annual TMS-AIME Fall Meeting, Philadelphia, Pa., Oct. 16.

MICROBIOLOGY SECTION OF BIOLOGY DIVISION

A. W. Baxter (Asst Prof), J. H. Bond (Assoc Prof), R. K. Guthrie (Dir, Biol Div) and M. J. B. Paynter (Sect Chm) attended the fall meeting of the South Carolina branch of the American Society for Microbiology which was held jointly with the North Carolina, Kentucky-Tennessee branches, in Asheville, N. C. on Oct. 3 and 4. The following papers were presented by Clemson faculty and graduate students:

"Isolation of a Mutant Strain of Streptococcus faecalis F24 deficient in permeability to Arginine," by A. W. Baxter (Asst Prof).

"Characterization of continuous cultures of lysogenic Escherichia coli 159T⁻ (λ cts)," by M. J. B. Paynter (Sect Chm) and H. R. Bungay III (Prof, BioE).

"A procedure for direct counting of bacteriophages in aqueous ecosystems," by D. L. Ewert (Grad Stu Belle W. Baruch Fellow in Natural Resources Biology) and M. J. B. Paynter (Sect Chm).

"Location of polygalacturonic acid trans-eliminase in Erwinia carotovora 1CPB-EC153," by K. L. Ellers (Grad Stu, Pl PA & Physiology) and M. J. B. Paynter (Sect Chm).

"Pathogenic factors of Sphaerophorus necrophorus, NCDC 5164," by J. D. Dick (Grad Stu), M. J. B. Paynter (Sect Chm), and L. E. Vereen (Asst Prof, FS & BioCh)

MICROBIOLOGY SECTION OF BIOLOGY DIVISION (continued)

"A study of the decomposition of a lake sediment by aerobic bacteria. 1. Analysis of the sediment and bacterial population," by W. S. Brewer (Grad Stu), A. R. Abernathy (Assoc Prof, ESE), and M. J. B. Paynter (Sect Chm).

"Growth of Clostridium perfringens type A in vacuum - sealed meats," by F. M. DeWork (Grad Stu) and L. E. Vereen (Asst Prof, FS & BioCh).

"In vitro response of Erwinia carotovora to selected herbicides," by F. W. Breazeale (Grad Stu) and N. D. Camper (Assoc Prof, Pl PA & Physiology).

M. J. B. Paynter (Chm) has been elected vice president of the South Carolina Branch of the American Society for Microbiology for 1969-1970.

MILITARY SCIENCE

Three additional officers have been assigned to the Third Army ROTC Instructors Group here at Clemson University. Major John B. Horton, Captain Norris K. Hook, and Captain Patrick H. Keating have all returned recently from Vietnam and are residing in the Clemson area with their families.

PHYSICS

P. B. Burt (Assoc Prof), W. E. Gettys (Assoc Prof), and H. W. Graben (Assoc Prof) have published an article in the August issue of the American Journal of Physics entitled "Quantum Theory of Scattering From Real Multipoles."

NATIONAL INSTITUTES OF HEALTH FELLOWSHIPS

Information concerning the revised NIH Predoctoral, Postdoctoral, and Special Research Fellowships is available in the Office of the Graduate School, 17 Tillman Hall.

CALENDAR OF CAMPUS EVENTS

Nov.	1	Sat.	1:30 EST	Football - Maryland at Clemson (Band Day)
Nov.	1	Sat.		Sailing - Clemson-College of Charleston Team Match
Nov.	1	Sat.		Admission Test, Graduate Study in Business, Room 20, Tillman Hall
Nov.	1	Sat.	8:00 p.m.	CDA Concert in Coliseum
Nov.	1	Sat.		Graduate School Foreign Language Test at Counseling Center, Room 20, Tillman Hall
Nov.	3	Mon.	9:00 a.m.	Educational Council Meeting
Nov.	3	Mon.	4:00 p.m.	Agronomy Seminar - Speakers: Dr. C. E. Rieck and Mr. James H. Palmer; Presentation of papers to be given at ASA meetings, Detroit, Mich. - P&AS Building, Room A-203.

CALENDAR OF CAMPUS EVENTS Cont.

Nov.	3	Mon.	4:00 p.m.	Biochemistry Seminar - Dr. Oscar Touster, Department of Molecular Biology, Vanderbilt, will lecture on "Enzymological Studies on Liver and Tumor Lysosomes." Room 101, P&AS Building.
Nov.	4	Tu.	3:00 p.m.	Soccer - Erskine at Clemson
Nov.	5-	Wed.		The Architecture of Charles Warren Callister (California Redwood Association), Lee Hall Gallery.
Dec.	1			
Nov.	5	Wed.	4:00 p.m.	Textile Science Seminar - J. W. Schappel, Fiber Society Lecturer American Viscose Division, FMC Corporation; Marcus Hook, Pennsylvania: "Rayon Technology - New Horizons" -- 301 Sirrine Hall.
Nov.	5	Wed.	11:00 a.m.	Lecture - "New Developments in Fertilizer Technology" by Dr. Gerald G. Williams, Director, Division of Agricultural Development, Tennessee Valley Authority, Muscle Shoals, Alabama - P&AS Building, Room A-203.
Nov.	6	Th.	8:00 p.m.	Graduate Wives Club - Guitar Concert - Mr. Ireland Regneir at the home of Mrs. Schwartz.
Nov.	6	Th.	7:30 p.m.	Woman's Club meets at Clemson House. Program features "Night of Surprises for Husbands and Wives."
Nov.	8	Sat.		Sailing - SAISA - Old Dominion Invitational
Nov.	10	Mon.	4:00 p.m.	Agronomy Seminar - Speaker: Mr. Ronald Miller; A farm of the future - P&AS Building, Room A-203.
Nov.	11-	Tu.-		Selected Prints For Young Collectors, Roten Gallery,
Dec.	9	Tu.		Lee Hall Gallery.
Nov.	12-15	Wed.- Sat.	8:00 p.m.	Clemson Players, Daniel Hall Theatre
Nov.	12	Wed.	8:00 p.m.	University Lecture Series Speaker: L. C. King, Northwestern University; "Chemical Education. Where to Now?" Room 131, Brackett Hall.
Nov.	13	Th.	4:00 p.m.	University Lecture Series Speaker: L. C. King; "Chemical Education at the High School-College Interface." Room 131, Brackett Hall.
Nov.	13	Th.	8:00 a.m. 4:30 p.m.	Income Tax Clinic, conducted by Industrial Management Dept. - Sirrine Hall.
Nov.	13	Th.	3:00 p.m.	Soccer - Western Carolina at Clemson
Nov.	13	Th.	2:00 p.m.	IM&TS Seminar, Sirrine Hall Auditorium. Speaker: Mr. Ceasa Cone, Chairman, Cone Mills Corp.

DEGREES AWARDED

The Office of Admissions and Registration reports that 1,186 degrees were awarded in the following categories for the academic year 1968-69:

Associate

Nursing -----	17
Total Associate Degrees Awarded -----	17

Bachelors'

Agriculture and Biological Sciences -----	116
Architecture -----	54
Arts and Sciences -----	177
Education -----	185
Engineering -----	189
Industrial Management and Textile Science -----	208
Liberal Arts -----	17
Physical and Mathematical Sciences -----	16
Total Bachelors' Degrees Awarded -----	962

Masters'

Agriculture and Biological Sciences -----	28
Architecture -----	1
Arts and Sciences -----	19
Education -----	47
Engineering -----	51
Industrial Management and Textile Science -----	19
Liberal Arts -----	5
Physical and Mathematical Sciences -----	4
Total Masters' Degrees Awarded -----	174

Doctors'

Agriculture and Biological Sciences -----	5
Arts and Sciences -----	14
Engineering -----	6
Industrial Management and Textile Science -----	3
Physical and Mathematical Sciences -----	5
Total Doctors' Degrees Awarded -----	33
Total Degrees Awarded 1968-1969 -----	1186

STUDENT ENROLLMENT

The Office of Admissions and Registration reports the following total enrollment by courses and academic classification for the first semester of 1969-70:

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Agriculture	2	0	0	0	0	0	0	0
Agricultural Economics	14	1	19	6	17	6	11	8
Agricultural Engineering	15	1	10	0	5	1	4	8
Agronomy	10	0	8	1	11	1	10	4
Animal Industries	0	0	0	0	0	0	0	0
Animal Science	15	1	7	2	8	4	8	4
Biology	31	3	21	2	10	3	15	4
Botany	1	2	3	0	3	0	2	0
Dairy Science	3	0	3	0	3	0	4	6
Entomology	0	0	1	2	0	0	1	3
Food Science	2	0	8	0	3	0	1	3
Forestry	50	4	14	2	13	9	9	20
Horticulture	15	1	9	3	12	0	5	10
Microbiology	8	0	0	1	3	2	2	0
Plant Sciences	0	0	0	0	0	0	0	0
Poultry Science	0	0	2	0	3	1	0	3
Pre-Veterinary	36	7	18	3	12	2	0	1
Zoology	9	7	23	5	30	10	24	14
Sub-Total	211	27	146	27	133	39	96	88
Architecture	0	0	0	0	0	3	52(a)	31(b)
Building Construction	11	4	14	1	23	7	20(c)	13(d)
Pre-Architecture	60	3	42	5	44	5	2	5
Sub-Total	71	7	56	6	67	15	74	49
Agricultural Education	8	5	15	6	25	3	10	11
Elementary Education	61	14	54	11	32	5	12	15
Industrial Education	18	16	39	17	36	14	15	17
Recreation & Park Adm.	45	25	48	20	57	18	48	47
Science Teaching	5	2	10	2	10	3	11	6
Secondary Education	73	17	63	12	58	14	37	18
Sub-Total	210	79	229	68	218	57	133	114
Engineering	51	0	1	0	0	0	0	0
Ceramic Engineering	15	1	8	3	11	1	9	7
Chemical Engineering	57	1	42	1	36	3	24	20
Civil Engineering	64	12	70	4	54	11	39	44
Electrical Engineering	123	18	90	9	54	10	30	36
Engineering Analysis	2	0	0	0	0	0	0	0
Industrial Engineering	0	0	0	0	0	0	2	3
Mechanical Engineering	89	7	37	7	50	15	37	32
Metallurgical Engineering	0	0	1	0	2	2	3	2
Sub-Total	401	39	249	24	207	42	144	144
Economics	37	16	73	18	69	23	47	19
Industrial Management	110	20	72	19	108	29	73	82
Textile Chemistry	7	4	3	1	2	0	3	0
Textile Science	2	0	1	0	0	1	0	0
Textiles	0	3	6	2	6	0	8	8
Sub-Total	156	43	155	40	185	53	131	109

STUDENT ENROLLMENT Cont.

Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	
Visual Arts	53	6	14	8	0	0	0	0	81
English	28	10	25	11	35	7	20	13	149
French	0	1	5	1	3	2	5	1	18
German	0	0	0	2	1	0	1	0	4
History	54	7	38	9	36	9	21	11	185
Natural Science	34	11	44	6	25	7	12	2	141
Psychology	29	17	30	9	22	3	18	6	134
Sociology	12	3	17	1	17	7	15	7	79
Spanish	1	2	0	0	1	0	3	1	8
So-Total	211	57	173	47	140	35	95	41	799
Engineering (AA)	11	1	19	2	0	0	0	0	33
Engineering (BS)	15	2	5	1	1	0	0	0	24
So-Total	26	3	24	3	1	0	0	0	57
Chemistry (BA)	1	0	0	0	1	0	0	4	6
Chemistry (BS)	24	4	6	4	13	5	4	5	65
Biology (BA)	0	0	0	0	0	0	0	1	1
Biology (BS)	3	0	4	0	6	2	8	2	25
Mathematics (BA)	6	2	4	0	5	2	2	1	22
Mathematics (BS)	60	2	33	5	18	6	22	8	154
Medical Technology	11	3	7	1	9	0	0	1	32
Physics (BA)	0	0	0	0	0	0	0	0	0
Physics (BS)	12	0	6	1	8	3	4	1	35
Dentistry	29	2	22	2	16	2	14	1	88
Medicine	67	8	63	6	44	9	34	9	240
Pharmacy	15	3	8	0	2	1	0	0	29
So-Total	228	24	153	19	122	30	88	33	697
Total	1514	279	1185	234	1073	271	761	578	5895
Graduate - Master's Level									561(e)
Graduate - Ph.D. Level									180
Postgraduate									21
Non-Degree Students									9
Total									771
Grand Total									6666
Greenville Campus									126
Upper Campus									152
Anderson Extension									24
Clinton-Honea Path Extension									32
Mountainburg Extension									21
Total									355
Overall Total									7021

a Includes twenty-one in the first semester of the fifth year.

b Includes eighteen in the second semester of the fifth year.

c Includes nine in the first semester of the fifth year.

d Includes four in the second semester of the fifth year.

e Includes eighteen off-campus at Greenville.

Enrollment by Men and Women - Full Time and Part Time
Clemson University
First Semester 1969-1970

Classification	MEN			WOMEN			TOTAL	
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time
1st Sem. Freshman	1185	13	1198	309	7	316	1494	20
2nd Sem. Freshman	200	3	203	71	5	76	271	8
Sub-Total	1385	16	1401	380	12	392	1765	28
1st Sem. Sophomore	967	4	971	204	10	214	1171	14
2nd Sem. Sophomore	171	5	176	49	9	58	220	14
Sub-Total	1138	9	1147	253	19	272	1391	28
1st Sem. Junior	934	5	939	129	5	134	1063	10
2nd Sem. Junior	233	7	240	28	3	31	261	10
Sub-Total	1167	12	1179	157	8	165	1324	20
1st Sem. Senior	649	1	650	78	3	81	727	4
2nd Sem. Senior	476	36	512	37	5	42	513	41
Sub-Total	1125	37	1162	115	8	123	1240	45
1st Sem. Fifth Year	30	1	31	1	0	1	31	1
2nd Sem. Fifth Year	20	2	22	0	0	0	20	2
Sub-Total	50	3	53	1	0	1	51	3
Total	4865	77	4942	906	47	953	5771	124
Graduate-Master's Level	225	172	397	47	117	164	272	289
Graduate-Ph.D. Level	72	103	175	2	3	5	74	106
Postgraduate	8	6	14	0	7	7	8	13
Non-Degree	1	4	5	1	3	4	2	7
Total	306	285	591	50	130	180	356	415
Grand Total	5171	362	5533	956	177	1133	6127	539
Greenville Campus	93	9	102	17	7	24	110	16
Sumter Campus	96	16	112	32	8	40	128	24
Anderson Extension	0	9	9	0	15	15	0	24
Belton-Honea Path Extension	0	5	5	0	27	27	0	32
Spartanburg Extension	0	3	3	0	18	18	0	21
Total	189	42	231	49	75	124	238	117
Overall Total	5360	404	5764	1005	252	1257	6365	656

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 7

November 15, 1969

ALUMNI GRANT SUPPORTS STUDENT ORGANIZATIONS

Twenty-seven University student organizations are beneficiaries of an \$8,000 grant from the Clemson Alumni Association to Student Government this year for the advancement of worthwhile student programs. The grant, made from unrestricted gifts to the 1968 Clemson Alumni Loyalty Fund, increases to \$30,000 the amount the Alumni Association has provided for student programs over a 10-year period.

Largest single grant this year was \$1,500 to the Student Government organi-



CONGRESSIONAL VISITORS -- Members of the Subcommittee on Flood Control of the U. S. House Public Works Committee toured University facilities and were given brief reports on Clemson's environmental programs during a recent visit to the state. Among the congressmen making the visit and shown with President Robert C. Edwards were (l-r) Robert C. McEwen of New York, Arnold Olsen of Montana, Fred Schwengel of Iowa, Subcommittee Chairman Robert E. Jones of Alabama and William Jennings Bryan Dorn of South Carolina.

ALUMNI GRANT SUPPORTS STUDENT ORGANIZATIONS Cont.

zation. The remaining \$6,500 was given to Student Government for use by other student organizations. These grants, allocated by Student Government, ranged from \$50 to \$450. Student organizations will use the money for such activities as community action projects, community service programs, to further scholarship awareness, theatrical equipment, promotion of blood drive, and to enable students to attend regional and national meetings of their respective organizations.

"These Alumni Association grants to student projects are positive proof that alumni today are anxious to join with students in worthwhile student activities," said George Aull, Jr., of Columbia, national president of the Clemson Alumni Association. "We are attempting to weld together a total Clemson family that strives to further the excellent contribution that the University makes in all areas."

BASKETBALL TICKETS

University faculty and employees who did not order basketball tickets on original ticket applications may do so at the Ticket Office, Fike Field House, during operational hours (8 a.m. to 4:30 p.m., Monday through Friday). Ticket priority expires Nov. 20, 1969.

MEMBERSHIP IN DEPARTMENT OF HIGHER EDUCATION

University faculty and administrators are eligible to join the Department of Higher Education of the South Carolina Education Association. Members receive professional publications, research reports and such benefits as low-cost insurance, low-cost educational travel, low-cost car leasing. The Department of Higher Education holds two meetings per year. On the agenda this year is Student Evaluation of Faculty. For details or applications call Dean Landrith, Ext. 414.

GIFTS AND GRANTS

Shell Chemical Company, \$200 to Plant Pathology and Physiology, for research to be conducted by F. H. Smith on nematode control.

Agricultural Society of South Carolina, \$2,000 to Agronomy and Soils, for studies involving trace elements in soybeans.

American Cyanamid Company, \$1,500 to Entomology and Economic Zoology, for studies on organic phosphate insecticides.

FMC Corporation, \$1,000 to Entomology and Economic Zoology, for research on the use of various insecticides against house flies in farm buildings.

Amchem Products Company, \$1,000 to Sandhill Station for research on peach growth regulators.

Uniroyal, Inc., \$500 to Horticulture, for studies of effects of Alar on peaches.

MINUTES OF THE FACULTY SENATE, SEPTEMBER 9, 1969

The September 9 meeting of the Faculty Senate was called to order by President John F. Pearce. The minutes of the August 26 meeting were approved as read.

Dr. Pearce called attention to faculty appointments to the Administration-Faculty-Student Council. They are:

1. J. F. Pearce, President of the Faculty Senate
2. B. J. Prochaska, Chairman, Policy Committee
3. D. L. Handlin, Chairman, Admissions and Scholarship Committee

Dr. Pearce also pointed out that President Edwards had clarified ROTC requirements at the September 8, 1969 Educational Council meeting. ROTC courses will cease to be a requirement for graduation after May 9, 1970.

Announcement was made by Professor Joe Mullins about a faculty tennis team with two matches scheduled in October. Interested faculty should contact him.

Welfare Committee Chairman, Dr. Mel Richardson, reported that Dr. Arthur Fear will write comments to be presented to the Senate on the article "Notable and Quotable."

Dr. B. J. Prochaska, Policy Committee Chairman, said that a sub-committee composed of Drs. Gettys and Riggs will look into the legality of having a faculty member appointed to the Board of Trustees.

Dr. Pearce then introduced the motion concerning merger of the Faculty Senate and the Faculty Research Council. The motion states:

"The Faculty Senate in principle favors movement toward merging the Research Faculty Council and the Faculty Senate."

Professor Ernest Rogers moved adoption of President Pearce's motion to have a committee work out the details of a merger. Dr. Ed Gettys moved to substitute the word "study" for "movement" in the original motion. Professor Gettys' motion carried. The advisability of leaving the more positive statement of "movement toward merging" in Dr. Pearce's original motion led to a retraction of the earlier vote to substitute the word "study" for "movement." The vote was 17 to 14 to leave President Pearce's wording unchanged.

Various points were brought out by Senate members in support of a merger. It was pointed out that the Administration often sends Faculty Senate recommendations to the Research Council before taking any action on them; and therefore merger would expedite matters considerably. A vote was taken on Dr. Pearce's motion, and it passed 36 to 3. The matter was then referred to the Policy Committee.

Dr. J. F. Allen presented his motion concerning the repeating of first semester freshman work with the second grade only counting in the GPR. Dr. Joe Mullins moved that this proposal be referred to committee. Subsequent

MINUTES OF THE FACULTY SENATE, SEPTEMBER 9, 1969 (continued)

discussion revolved around the value of remedial work to improve poor performance on first semester courses versus the dilemma of the well-prepared student whose initial adjustment to college and attitude toward study adversely affects his first semester GPR. Attention was also called to the basic problem concerning the distinct advantage of the transfer student whose entire work done elsewhere does not count in his GPR. It was pointed out that the GPR for transfer student and others should be figured on the same basis, whether or not the first semester work may be repeated with only the second grade on a given course affecting the GPR. It was also brought out that both remedial work and erasable first semester marks may be needed. Dr. Allen's motion was unanimously referred to Dr. Handlin's Admissions and Scholarship Committee.

After brief remarks by Dr. Pearce, the meeting was adjourned at 5:15 p.m.

MINUTES OF THE FACULTY SENATE, OCTOBER 14, 1969

President John F. Pearce called the Faculty Senate to order at 4:15 on October 14. The September 9 minutes were approved as read.

Dr. Pearce reported briefly concerning the following items:

1. Book Store Inquiry--Ninety-five percent of the titles were here on the first day of class this semester.
2. Graduation Exercises--Senate poll revealed that most members favor a shorter convocation without forfeiting the "pomp and ceremony" expected on such occasions.
3. Purpose and Function of the Administration-Faculty-Student Council (AFS)--This Tri-Level Committee meets every Wednesday with a lengthy agenda which runs the gamut of university wide problems.
4. Faculty Senate/Research Council Merger--The vast majority of university faculty members qualify as both teaching and research faculty. (President Pearce's research in this area will be turned over to the Policy Committee.)

Professor E. B. Rogers, Welfare Committee, moved that the following statement of Sidney Hook, Professor of Philosophy at New York University be affirmed by the Senate:

"The University is not a political community. Its business is not government but primarily the discovery, publication, and teaching of the truth. Its authority is based not on numbers or the rule of majority, but on knowledge. Although it can function in a spirit of democracy, it cannot be organized on the principle of one man, one vote, or, if it takes its educational mission seriously, or equal vote for student and faculty in the affairs of the mind or even with respect to organizational and curricular continuity. The fact that a society is politically organized as a democracy does not entail that all its other institutions be so organized--its families, its orchestras, museums, theaters, churches, and professional guilds.

MINUTES OF THE FACULTY SENATE, OCTOBER 14, 1969 Cont.

...The assumption of a political democracy is that there are no experts in wisdom, that each citizen's vote is as good as any other's. If we make the same assumption about universities, and define a citizen of that community as anyone who functions in any capacity on the campus, we may as well shut up educational shop....."

An amendment by Professor H. D. Adams to delete the identification of Hook with New York University was defeated. The vote was 28 to 8 in favor of the original motion to support Professor Hook's position.

The Welfare Committee, Dr. M. K. Richardson, Chairman, requested President Pearce to ask Dean Victor Hurst for a definite policy statement in writing concerning sabbatical leave for faculty members and for more information concerning any legal limitations on a tuition exchange program.

Dr. B. J. Prochaska, Chairman of the Policy Committee reported that University Counsel A. W. Rigsby said that it was legally impossible to have a faculty member as a voting member of the Board of Trustees. Dr. Prochaska also reported that the Faculty Senate/Research Council merger was still under study.

Chairman D. L. Handlin, Admissions and Scholarship Committee, moved that the following addition to the Scholastic Regulations (pp. 112-13) be recommended by the Senate:

"In the case of Freshmen who reschedule courses that were passed or failed in their first semester, the student's grade-point ratio will be corrected to reflect only the grade obtained in the rescheduled course(s)."

This motion was passed 21 to 9.

The following items of new business were referred to the Policy Committee:

(1) Resolution from J. C. Mullins regarding electives in each department's required curriculum.

(2) Resolutions from H. D. Adams: (a) that a statement of University purposes be included in CU Announcements, Faculty Handbook and Student Handbook, (b) that certain University policies conform to selected national standards.

The meeting was adjourned at 5:35 p.m.

PUBLIC RELATIONS

Melvin Long (Dir) has been elected vice chairman of the College News Seminar of the Carolinas.

MINUTES OF THE SEPTEMBER RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its September meeting at 4:00 p.m., September 16, 1969, in Room 28, Tillman Hall. Dean of the Graduate School A. E. Schwartz reported on affairs of the Graduate School and the Office of the University Research, to bring the Council up to date. Dr. Schwartz specifically discussed the proposed professional graduate degrees being considered by Clemson, and answered many questions posed by the members.

The meeting was adjourned for one week, and was reconvened at 4:00 p.m., September 23, 1969, in Room A206, Plant and Animal Science Building. The Council passed a resolution that the Faculty Senate be contacted for a statement of policy on the handling of grievances of faculty members, including procedures used and the responsibilities of its Welfare Committee in these matters.

The Council approved a Policy Committee (McGregor) recommendation that the leave policy submitted in March, 1969, to the University Administration be resubmitted. In part, this revised leave policy suggested that:

1. Faculty members (all professional employees) on 12-month appointments shall accrue annual leave with pay at the rate of 22 working days for each 12 months' employment.
2. A maximum of 22 days of accrued annual leave may be carried forward at the beginning of each calendar year, and no employee can accumulate more than 30 working days of leave allowance.
3. A faculty member terminated without prejudice will receive pay for accrued leave not taken, but not to exceed one calendar month's pay.
4. With the approval of the dean or academic head concerned, annual leave may be accrued for the purpose of professional improvement up to three calendar months (66 working days). This leave may be taken to pursue an approved program of study, research, or travel and shall be granted only when such leave will not interfere with the regular performance of duties of the faculty member. Request for leave must be accompanied by a record of leave accrual, approved annually by the applicant's administrative head, and a proposed plan of study, research, or travel. This leave may not be used while employed outside the University.
5. Sick leave may also be used in the event of serious illness or death of a member of his immediate family; limited to three days per case and six days during a calendar year. The immediate family is defined as spouse, children, parents, brothers/sisters, and a relative sharing his household. A written statement by the faculty member must be filed with the request for leave giving the particulars justifying this use of sick leave.

The Policy Committee also proposed, and obtained approval, of the following. The Research Faculty Council considers the following requirements for graduate degrees critical to the integrities of degrees and to excellence of the graduate programs at Clemson. Therefore, the M.S. and Ph.D. degrees should be reserved for research degrees requiring theses. Presently existing M.S. degrees for non-thesis programs should be revised to comply with this recommendation. Also, formal credit hour and course requirements should be at least as great for professional degrees as for research degrees.

AGRICULTURAL ECONOMICS

J. C. Hite (Asst Prof) has published a commentary on "Institutional Obsolescence and Innovation" in Fourteen Variations on a Theme, edited by Harold F. Breimyer and published by the University of Missouri, Columbia.

ANIMAL SCIENCE

D. R. Lamond (Visiting Prof) is senior author of a recent textbook entitled DAIRY CATTLE HUSBANDRY. This book is published by Angus and Robertson.

CHEMICAL ENGINEERING

F. C. Alley (Prof) and J. W. Hall (Assoc Prof) on Oct. 5-7 attended an invitation symposium sponsored by GM Research Labs at Detroit entitled "Chemical Reactions in Urban Atmospheres."

D. F. Bruley (Assoc Prof) presented a paper at the 157th National Meeting of ACS, Sept. 11, "A Mathematical Model of the Chemostat Incorporating a Dynamic Relationship Between Microbial Specific Growth Rate and Substrate Concentration" with T. B. Young III and H. R. Bungay. Dr. Bruley also attended the Industrial Relations Seminar at Union Camp Paper Company, Savannah, Ga., Sept. 29-Oct. 1.

ECONOMICS

Frank A. Close (Asst Prof) presented a paper entitled, "The Effects of Federal Reserve Actions on Interest Rate Differentials: Monetary Effects on the Term Structure of Interest Rates," at the Southern Economic Association meeting at St. Louis, Mo., on Nov. 14.

ELECTRICAL ENGINEERING

L. C. Wilcox (Hd) and B. E. Gilliland (Assoc Prof) co-authored the paper, "Direct Digital Control of Conventional Wastewater Renovation Systems," with J. F. Andrews (Hd) and J. O. Bryant, Jr. (Grad Stu) of the Environmental Systems Engineering Department. Mr. Bryant presented the paper at the Annual American Society of Civil Engineers Meeting at Chicago, Ill., on Oct. 16.

B. E. Gilliland (Assoc Prof) presented a paper entitled "Water Resource Pollutant Identification by Digital Computer Analysis of Remote Infrared Sensor Spectral Signatures" at the IEEE Systems Science and Cybernetics Conference at Philadelphia, Pa., on Oct. 23.

J. C. Martin (Prof) and B. E. Gilliland (Assoc Prof) have been awarded a \$27,467 grant from the National Aeronautics and Space Administration for research on "Minimum Variance Estimators for Signal Derivatives: A Problem in Instrument Landing Systems."

ELECTRICAL ENGINEERING (continued)

J. W. Lathrop (Prof) presented an invited lecture, "Integrated Digital Components of the 70's," at the Annual Technical Conference of the South Carolina Section of the Institute of Electrical and Electronics Engineers in Charleston on Nov. 7.

Robert W. Snelsire (Assoc Prof) attended the Tenth Annual Symposium on Switching and Automata Theory at the University of Waterloo, Ontario on Oct. 15-17.

R. W. Gilchrist (Prof) attended the Southeastern Electric Exchange Engineering and Operations Division Conference as a guest of Duke Power Company. The conference was held in Washington, D. C., on Oct. 6-7. Dr. Gilchrist also served on a panel evaluating proposals for the National Science Foundation. The proposals were for participation in the Undergraduate Research Participation Program. The panel met in Chicago, Ill., on Oct. 10 and 11.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

The South Carolina Pest Control Association has named Richard C. Fox (Prof) an honorary member of their association according to an announcement by Mack Boger, Secretary-Treasurer, in a letter dated Oct. 29, 1969.

S. B. Hays (Hd) with W. C. Nettles (Principal Ext Ent), C. A. Thomas (Assoc Ext Spec), and F. H. Smith (Assoc Ext Spec, Pl Pa) attended the Tri-State Peach Workers Conference in Byron, Ga., Oct. 28-29.

ENVIRONMENTAL SYSTEMS ENGINEERING

The Fifth Annual Air and Water Pollution Control Seminar will be held at Clemson University on December 4 and 5, 1969. R. A. Banister, Coordinator, Office of Industrial and Municipal Relations, is handling the arrangements. F. C. Alley (ChE) and A. R. Abernathy (ESE) are in charge of the technical program.

B. C. Dysart (Asst Prof) presented a paper entitled "Control of Water Quality in a Complex Natural System" at the IEEE Systems Science and Cybernetic Group Conference in Philadelphia on Oct. 23. Dr. Dysart also attended the annual meeting of the American Water Resources Association in San Antonio, Oct. 27-29.

INDUSTRIAL MANAGEMENT

T. H. Gunter, Jr. (Asst Prof) was a speaker at "Problems and Promises of Fabrics in the 1970's"--a textile symposium. The symposium was held at the University of Rhode Island on Oct. 21. Prof. Gunter's topic was "What's it all About?".

INTERDISCIPLINARY STUDIES IN ENGINEERING

F. A. Young (Asst Prof) attended the 50th Anniversary Symposium on Dental Materials at the National Bureau of Standards in Washington, D. C. Dr. Young also presented papers at the Pacific Coast Section of the American Ceramic Society annual meeting in Seattle, Wash. (with S. F. Hulbert) and the Fall meeting of the Metallurgical Society of AIME in Philadelphia (with S. F. Hulbert and C. N. Wilson).

MATHEMATICS

Joel V. Brawley (Assoc Prof) authored a paper entitled, "Certain sets of involutory matrices and their groups" which appeared in Duke Mathematical Journal, September, 1969.

MILITARY SCIENCE

On Oct. 4, Captain Russell J. Stoewe and Staff Sergeant William S. Pray, Jr., advisors for the Clemson Counter-guerrilla Platoon, accompanied 39 members of the organization on a tour of the Vietnamese Village, a training facility at Fort Jackson, S. C. Also on Oct. 11, Captain Stoewe and Staff Sergeant Pray supervised a field training exercise conducted in the Twin Lakes area of Hartwell Reservoir. Forty-one members of the Counter-guerrilla Platoon participated in this night exercise.

PHYSICS

Carlton W. Ulbrich (Asst Prof) has received a Frederick Gardner Cottrell grant-in-aid from the Research Corporation in the amount of \$9,895 to support his research in "Second Sound, Poiseuille Flow and Thermal Conduction Phenomena in Solids at Low Temperatures."

W. E. Faust (Grad Stu), T. N. O'Neal (Grad Stu), and R. L. Chaplin (Assoc Prof) are authors of a paper published in the July 15, 1969, issue of The Physical Review. The title of the paper is "Measurements of the Electron - Irradiation Damage Rates in Magnesium."

A. L. Laskar (Assoc Prof) is co-author with A. P. Batra and L. Slikfin of an article in the August issue of the Journal of Physics and Chemistry Solids. The title of the article is "Low Temperature Suppression by Chlorine Diffusion of Gold in Silver Chloride."

P. B. Burt (Assoc Prof) with W. E. Gettys (Assoc Prof) and H. W. Graben (Assoc Prof) published a paper in the August issue of the American Journal of Physics entitled "Quantum Theory of Scattering from Real Multipoles."

P. B. Burt (Assoc Prof) published an article in the September issue of the Journal of Plasma Physics (Great Britain). The title of the article is "Dispersion in Inhomogeneous Plasma Streams."

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Hd), Revis Frye (Asst Prof), and Lawrence Gahan (Asst Prof) were participants in the program at the Annual State Conference of the South Carolina Recreation and Park Society held in Greenville, Oct. 26-28. Dr. Brantley was elected to serve as President-elect in the South Carolina Recreation and Park Society for 1969-70 at the conference and will also serve as Chairman for the conference program for next year.

G. E. Howard (Asst Prof) directed a whitewater canoeing workshop on the Chattooga River, Sept. 28. The workshop was sponsored by the Department of Recreation and Park Administration, the Clemson Outing Club and the Carolina's Section of the Sierra Club. Forty-six persons from Georgia, North Carolina and South Carolina participated.

SOCIAL SCIENCES

Stephen Appell (Instr) spoke on "The Teaching of Black History," before the Virginia Education Association, District E, at Danville, Va., Oct. 11.

TEXTILE SCIENCE

Edward A. Vaughan (Instr) is co-author with J. W. S. Hearle (University of Manchester - England) of a paper entitled, "Fatigue Studies of Drawn and Undrawn Fibre Materials." The paper will appear in the forthcoming edition of Rheologica Acta.

Robert H. Barker (Assoc Prof) lectured on various topics in the area of textile chemistry to the staff of J. P. Stevens Central Research Laboratories, Garfield, N. J., on Sept. 26, to the Rotary Club of Dillon, S. C., on Oct. 6, to the Illinois State University on Oct. 10, to Xavier University in New Orleans on Oct. 14, to the University of Southwestern Louisiana on Oct. 16, and to Burlington Industries Research Center, Greensboro, N. C., on Oct. 23.

J. J. Porter (Assoc Prof) and Scott B. Spears, Jr. (Grad Stu) presented a paper entitled, "The Photodegradation of Malachite Green in Aqueous Solution and on Chemically Modified Cellulose" at the national meeting of the American Association of Textile Chemists and Colorists on Nov. 12-14, in Charlotte, N. C.

J. L. Lundberg (Assoc Prof) presented a paper "Light Scattering by Textile Fibers," at the fall meeting of The Fiber Society, Oct. 9, in Philadelphia, Pa.

ZOOLOGY

E. D. Brodie, Jr. (Asst Prof) with T. H. Dietz (Univ of California Medical School) were authors of the paper, "Blood Ion Concentrations as a Function of Developmental Stage in the Gopher Snake, Pituophis melanoleucus catenifer" in Comp Biochem Physiol, Vol. 30: 673-678.

ZOOLOGY (continued)

E. D. Brodie, Jr. (Asst Prof) with L. S. Gibson (Oregon State Univ) were authors of the paper, "Defensive behavior and Skin Glands of the Northwestern Salamander, Ambystoma gracile" in Herpetologica, Vol. 25: 187-194.

E. D. Brodie, Jr. (Asst Prof) with R. A. Nussbaum and R. M. Storm (Oregon State Univ) were authors of the paper, "An Egg-laying Aggregation of Five Species of Oregon Reptiles" in Herpetologica, Vol. 25: 223-227.

E. D. Brodie, Jr. (Asst Prof) attended a National Meeting of the Society for the Study of Amphibians and Reptiles from Sept. 5 to 7 at Carbondale, Ill.

ADMISSIONS AND REGISTRATION

K. N. Vickery (Dean) spoke to the Ohio Association of Collegiate Registrars and Admissions Officers at the annual meeting of the association at The College of Wooster Oct. 16-17.

ARCHITECTURE

Joseph L. Young (Prof) was elected Vice President of the South Carolina Chapter of the American Institute of Architects. He has previously served as secretary and for the past two years was a member of the Executive Committee.

COMMUNICATIONS CENTER

Jim Burns (Tec Dir) and Earl Cosens (Eng) attended the National Association of Educational Broadcasters Convention in Washington, D. C., Nov. 9-12. Harry Erham (Dir) attended a Conference of Educational Systems for Operators of Water Pollution Control Facilities held in Atlanta and sponsored by the Department of Interior and the University. At the conference, a lesson prepared by the Communications Center was presented on an Audiscan projector. The projector, which combines a film strip and audio tape in a small cartridge, will be used for training pollution control personnel.

COUNSELING CENTER

Dr. Virginia S. Hardie (Dir) has been elected to the Executive Council of the Board of Trustees of the South Carolina Mental Health Association. She also was elected as secretary of the Board. Dr. Hardie served as a discussion leader at the annual meeting of the South Carolina Mental Health Association in Columbia Oct. 28-29.

Two research articles completed by Counseling Center staff, "Relation of the College Board SAT Scores to Graduate Record Examination Scores for the Purpose of Prediction of Success in Graduate School" and "A Five-Year (1963-68) Evaluation of Counseling Services at Clemson University" have been microfilmed for inclusion in the ERIC Counseling Information Services of Ann Arbor, Mich.

CALENDAR OF CAMPUS EVENTS

Nov. 15	Sat.	1:30 EST	Football - North Carolina at Chapel Hill, N. C.
Nov. 15	Sat.		South Atlantic Intercollegiate Sailing Association - College of Charleston Invitational
Nov. 15	Sat.		Architectural School Aptitude Test, Room 20, Tillman H1
Nov. 17	Mon.	4:00 p.m.	Agronomy Seminar: Speaker - Mr. Marion Langston; Triflurin residue and effects - 5 year study - Crops and Soils. P&AS Building, A-203
Nov. 19	Wed.	4:00 p.m.	Dr. H. M. El Behery, Assoc. Prof. Tex., Clemson University, "Fiber Migration," Rm. 301, Surrine Hall
Nov. 20	Th.	4:00 p.m.	G. B. Savitsky, Physical Chemistry, Clemson University will be speaker in Brackett Hall, Room 131
Nov. 20	Th.	4:00 p.m.	W. B. Barlage, ChE, has invited Dr. F. P. Pike, Professor of Chemical Engineering at University of South Carolina to speak on "Internal Circulation in Drops," - Room 100, Earle Hall
Nov. 20	Th.	2:00 p.m.	Electrical Engineering Seminar Series - Dr. H. J. Helgert, "Error Control Coding in Digital Data Processing" - Room 324, Riggs Hall
Nov. 20	Th.	4:00 p.m.	Environmental Systems Engineering and Water Resources Engineering Seminar - Dr. C. N. Sawyer, Vice President Metcalf & Eddy, Boston -- Room 300, Lowry Hall <u>Topic</u> - "Selection of a Treatment Method for a Textile Waste"
Nov. 21	Fri.	3:00 p.m.	Industrial Management Graduate Seminar Series - Melvin Hinich, Professor of Urban and Public Affairs, Carnegie - Mellon University; "Topics in the Problem of Social Choice" - (This seminar is sponsored jointly with the Dept. of Mathematics) - Surrine Hall Aud.
Nov. 22	Sat.	1:30 EST	Football - South Carolina at Columbia, S.C. (Classes Suspended)
Nov. 22	Sat.		South Atlantic Intercollegiate Sailing Association Fall Championships at Clemson
Nov. 24-26	M-W		Follow Thursday, Friday, Saturday class schedule
Nov. 24	Mon.	4:00 p.m.	Agronomy Seminar - Speaker: Mr. S. M. Rishi; Biosynthesis and characterization of soil polysaccharides, P&AS, A203
Nov. 24	Mon.	11:00 a.m.	Lecture by Douglas M. Crutchfield, Leader, Forest Research Center, Westvaco Experimental Forest, Georgetown, South Carolina.
Nov. 27-29	Th.-Sat.		Thanksgiving Holidays

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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ARGENTINE YOUTHS TO VISIT CLEMSON

The Office of Student Affairs, Foreign Student Division, in cooperation with The Experiment in International Living will sponsor a three week visit by 12 young people from Argentina beginning on January 7, 1970.

This is a project in international understanding through family living. Each "Experimeter" will live with a Clemson area family during their visit. Through family and group activities these Argentine youths will learn about American life and also share their own way of life with their American hosts and friends.

Faculty and/or staff members who would be interested in acting as a host family or those desiring further information are asked to communicate with Mr. Jim Hoffmann, Director of Student Activities, on the seventh level of the Student Center before December 12, 1969.

COMMUNICATIONS CENTER

The University Communications Center recently produced a film about the South Carolina 4-H Electric Congress. This year's Congress was held in Florence by the Cooperative Extension Service. Carolina Power and Light Co., Duke Power Co., and South Carolina Electric and Gas Co have purchased copies of the film.

EARLY DEADLINE FOR JAN. 1 NEWSLETTER

The next issue of the Newsletter will be on Jan. 1, 1970. Because of Christmas Holidays, deadline for all copy to be included in the Jan. 1 issue is Wednesday, Dec. 10.

SAILING CLUB

The Clemson Sailing Club was host to the South Atlantic Intercollegiate Sailing Association's Fall Championship Regatta Nov. 22-23. Racing was held in two divisions, Penguins and 420's. Participating schools included Davidson, The Citadel, Old Dominion, University of South Carolina and the University of Virginia.

AGRONOMY AND SOILS

C. E. Rieck (Asst Prof) presented a paper entitled "Effects of Carbon Sources, Soil pH, and Temperature on Microbial Decarboxylation of Picloram" by C. E. Rieck, T. M. McCalla and T. L. Lavy at the American Society of Agronomy Meetings in Detroit, Mich., Nov. 12.

James H. Palmer (Grad Stu) presented a paper entitled "Additive and Dominance Variance Estimates in Hybrid Wheat Populations" by J. H. Palmer and W. D. Graham, Jr. at the American Society of Agronomy Meetings in Detroit, Mich., Nov. 10.

John R. Steer (Undergrad) won first place in the Student Activities Subdivision, American Society of Agronomy, National Speech Contest speaking on the subject "The Auto-Tutorial Approach to Agronomic Teaching. What Can It Do?"

R. Dent King (Undergrad) was appointed co-chairman of the National Soil Judging Contest Committee, Student Activities Subdivision, American Society of Agronomy.

ARCHITECTURE

During the past summer, A. J. Kaufmann (Assoc Prof) served as senior counselor and consultant to the Resource Development Project of the Southern Regional Education Board. He was responsible for monitoring housing studies conducted by twelve student interns, including two Clemson undergraduates. He also attended the inaugural meeting of the Atlanta Service-Learning Conference, June 30-July 1, and a conference on housing conducted by the Appalachia Regional Commission in Washington, D. C., July 10-11. Prof. Kaufmann also chaired a session on architectural structures at the Architect-Researcher's Conference in Houston, Tex., Oct. 15-17.

H. H. Williamson (Assoc Prof) has been elected to associate membership in the American Psychological Association.

CERAMIC ENGINEERING

G. C. Robinson (Prof & Hd) and C. R. Reese (Grad Stu) presented a paper entitled "Acoustical System for Thermal Shock Evaluation" at the Southeastern Section, American Ceramic Society, Fall Meeting in Knoxville, Tenn., Nov. 15.

G. C. Fain (Assoc Prof) was elected Chairman-Elect of the Southeastern Section of the American Ceramic Society at the Fall Meeting in Knoxville, Nov. 14-15. Dr. Fain also presented a paper on soluble glass containers at the Fall Meeting of the ASME in Los Angeles, Calif., Nov. 18.

CHEMISTRY

Several faculty members and students attended the Southeastern Regional Meeting of the American Chemical Society at Richmond, Va., Nov. 5-8. The following papers were presented:

CHEMISTRY (continued)

B. T. Upchurch (former Grad Stu) and Frederick Lindstrom (Prof), "Metal Chelates of d-trans-1,2-Diaminocyclopentanetetraacetic Acid. I. Optical Rotatory Dispersion and Circular Dichroism Studies," and "Metal Chelates of d-trans-1,2-Diaminocyclopentanetetraacetic Acid. II. Ligand Exchange Kinetics of the Alkaline-Earth Metal Complexes."

J. W. Huffman (Prof) and R. R. Sobti (Postdoctoral Assoc), "A Synthetic Approach to the Veratrum Alkaloids."

P. A. Spanninger (Grad Stu) and J. L. von Rosenberg, Jr. (Assoc Prof), "The Aluminum Halide Catalyzed Isomerization of Alkyl Phenyl Ethers."

Carol L. Cowherd (former Grad Stu) and J. F. Geldard (Asst Prof), "An HMO Study of Nonadditivity in the Chemical Shifts of Pyrogallol and Pyrocatechol."

R. E. Block (former Grad Stu) and H. G. Spencer (Prof), "NMR Studies of Copolymers of Vinylidene Chloride and Methacrylonitrile."

J. W. Huffman (Prof) and J. F. Geldard (Asst Prof) presided over sections at the meeting.

ELECTRICAL ENGINEERING

L. C. Wilcox (Hd) and B. E. Gilliland (Assoc Prof) co-authored the paper "Direct Digital Control of Conventional Wastewater Renovation Systems" with J. F. Andrews (Hd) and J. O. Bryant, Jr. (Grad Stu) of the Environmental Systems Engineering Department. Mr. Bryant presented the paper at the annual American Society of Civil Engineers Meeting at Chicago, Ill., on Oct. 16.

B. E. Gilliland (Assoc Prof) presented a paper entitled "Water Resource Pollutant Identification by Digital Computer Analysis of Remote Infrared Sensor Spectral Signatures," at the IEEE Systems Science and Cybernetics Conference at Philadelphia, Pa., on Oct. 23.

J. C. Martin (Prof) and B. E. Gilliland (Assoc Prof) have been awarded a \$27,467 grant from the National Aeronautics and Space Administration for research on "Minimum Variance Estimators for Signal Derivatives: A Problem in Instrument Landing Systems."

J. W. Lathrop (Prof) presented an invited lecture "Integrated Digital Components of the 70's " at the annual Technical Conference of the South Carolina Section of the Institute of Electrical and Electronics Engineers in Charleston, Nov. 7.

ENGLISH

Harriet Holman (Assoc Prof) had an article, "Thomas Nelson Page's Account of Tennessee Hospitality" published in the fall issue of the Tennessee Historical Quarterly. Dr. Holman also was recently elected secretary of the Southeastern American Studies Association.

ENGLISH (continued)

The English Department had a large delegation in attendance at the annual meeting of the South Atlantic Modern Language Association in Atlanta, Nov. 6-8. Richard J. Calhoun (Alumni Prof), currently on leave as a Fulbright Lecturer to Yugoslavia, prepared a paper for the meeting. His paper, "James Dickey: The Expansive Imagination," was read by Claud Green (Prof & Asst Dean of the Univ).

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Sam G. Turnipseed (Assoc Prof, Edisto Sta) spoke at the Auburn University Pest Control Conference in Auburn, Ala., on Nov. 19, on "Economic Losses from Soybean Insects."

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) presented a paper "Training the Environmental Technician" at the annual meeting of the American Public Health Association in Philadelphia on Nov. 12. Dr. Austin, representing the American Association of Professors in Sanitary Engineering, met with representatives of the Royal Society of Health (England) in order to set up an interchange of information with this group.

A. R. Abernathy (Assoc Prof) and J. H. Austin (Prof) represented Clemson University at the Twentieth Annual meeting of the Pollution Control Section of the S. C. Water and Pollution Control Association at Columbia, S. C. on Nov. 13 and 14. Dr. Abernathy presented a paper on the "Enrichment of Lakes and Impoundments" and served on the program committee. Dr. Austin presented a paper on "Trends in Wastewater Treatment Plant Operator Training."

FOOD SCIENCE AND BIOCHEMISTRY

W. P. Williams, Jr. (Hd) presented a seminar on "Carbohydrates and Coronary Heart Disease" to the Columbia Dietetic Association at the Technical Education Center in Columbia, S. C., Nov. 14.

J. H. Mitchell, Jr. (Prof) attended a symposium on "Feeding the Military Man" at the U. S. Army Natick Laboratories, Natick, Mass., Oct. 19-22, and visited the Food and Drug Administration Laboratories in Washington, D. C. on Oct. 23.

Donald M. Henricks (Asst Prof) attended a training conference on radioimmunoassay of hormones at the University of Michigan, Oct. 27-30. He visited with the reproductive biology research group of the Upjohn Company at Kalamazoo before returning to Clemson.

FOOD SCIENCE AND BIOCHEMISTRY (continued)

Joseph J. Jen (Asst Prof), Robert F. Borgman (Assoc Prof), and David Guthrie (Grad Stu) attended the 21st annual Southeastern Regional Meeting of the American Chemical Society in Richmond, Va., Nov. 4-6. Dr. Jen presented a paper entitled, "The Degradation of Chlorophyll Solution by Light." The paper which David Guthrie presented was entitled, "A Radio-ligand Binding Assay for Plasma Progesterone in Figs."

Larry E. Vereen (Asst Prof) attended the State-Federal Microbiological Seminar-Workshop in Columbia, S. C., Oct. 26-29. These seminars, which were presented by members of the Food and Drug Administration, the National Communicable Disease Center, and the South Carolina State Board of Health, primarily dealt with the various aspects of food poisoning.

INTERDISCIPLINARY STUDIES IN ENGINEERING

H. R. Bungay (Prof) attended a course "Iterative Analog Computation" by Electronic Associates, Inc., held at Orlando, Fla. Dr. Bungay took time out from the course to present a seminar "Microbial Bioengineering" at Florida Technological University.

M. J. B. Paynter (Sect Ldr, Microbiol) and H. R. Bungay (Prof) have a paper "Dynamics of Coliphage Infections" in Fermentation Advances, ed. D. Perlman, Academic Press.

The following papers have been presented by members of the Division of Interdisciplinary Studies:

S. F. Hulbert (Hd), J. J. Klawitter (Grad Stu), F. A. Young (Asst Prof), C. D. Talbert (Grad Stu), R. S. Mathews (Assoc Prof), and F. H. Stelling (Adjunct Prof), "Potential of Ceramic Materials for Surgical Implants," at the 7th Annual Meeting Engineering Sciences in Biomedicine, St. Louis, Mo., Nov. 4.

S. F. Hulbert (Hd), "Conventional Internal Fixation Devices Using Porous Ceramic Materials: Status Report," at Workshop on Total Hip Replacement and Skeletal Attachment for External Prosthesis; Committee on Prosthetic Research and Development, National Academy of Science and the Committee on Biomedical Engineering, American Academy of Orthopedic Surgeons, Washington, D. C., Nov. 6.

S. F. Hulbert (Hd), "Biocompatibility of Ceramics," at Workshop on Total Hip Replacement and Skeletal Attachment for External Prosthesis; Committee on Prosthetic Research and Development, National Academy of Science and Committee on Biomedical Engineering, American Academy of Orthopedic Surgeons, Washington, D. C., Nov. 7.

S. F. Hulbert (Hd), "A Review of the Potential of Ceramics for Surgical Applications," at Battelle-Northwest; University of Washington; Seminar-Workshop in Biomaterials, Seattle, Wash., Nov. 12.

MILITARY SCIENCE

Vincent D. R. Guide (Asst Prof) lectured on Southeast Asia to the Social Science Classes at Margaret Morrison Junior High School on Oct. 31 and Nov. 4. On Nov. 9, Lt. Col. Guide spoke to the Clemson Methodist Church's Senior High School Youth Group on Vietnam. A question and answer period followed his talk.

PHYSICS

John R. Ray (Asst Prof) published a paper in the September issue of the Lettere Al Nuovo Cimento entitled "On the Gravitational Action Principle."

Philip B. Burt (Assoc Prof) presented a paper at Plasma Physics Divisional Meeting of the American Physical Society in Los Angeles, Nov. 11-15. During the same trip he gave a seminar, "A New Approximation in Potential Scattering," at the Jet Propulsion Laboratory, California Institute of Technology, Pasadena, Calif.

The faculty of the Department of Physics presented one invited paper and nine contributed papers at the meeting of the Southeastern Section of the American Physical Society held at the University of Florida, Nov. 6-8. The papers presented are listed below.

Malcolm J. Skove (Prof) presented a 30 minute invited paper entitled "Superconductivity in Metal Whiskers."

The following are the contributed papers:

Donald E. Kinkaid (former Grad Stu) and Edward Gettys (Assoc Prof), "Elastic Proton Scattering from Li."

A. L. Laskar (Assoc Prof) and L. M. Slifkin (U.N.C. at Chapel Hill), "Diffusion of Manganese in Doped Silver Chloride."

P. B. Burt (Assoc Prof) and F. J. Woods (Grad Stu), "Integral Approximation in Potential Scattering."

W. A. Lindstrom (Grad Stu) and M. D. Sherrill (Assoc Prof), "Magnetic Coupling Between Superconducting Films."

John T. Rompala (Asst Prof) and W. Edward Gettys (Assoc Prof), "Elastic and Inelastic Nucleon Scattering."

T. G. Anderson (Grad Stu) and R. L. Chaplin (Assoc Prof), "Radiation Effects in Pure and Doped Aluminum."

T. N. O'Neal (Grad Stu) and R. L. Chaplin (Assoc Prof), "Low Temperature Recovery of Magnesium Following Electron Irradiation."

PHYSICS (continued)

R. J. Repka (Grad Stu) and F. J. Keller (Asst Prof), "Angular Studies of V_k -Center ESR Spectra in Several Alkali-Iodides."

R. J. Roedersheimer (Grad Stu) and H. W. Graben (Assoc Prof), "Approximate Variational Solution of the Thomas-Fermi-Dirac Equation for Atoms."

PLANT PATHOLOGY AND PHYSIOLOGY

Kathryn Ellers (Grad Stu) attended the joint meeting of the South Carolina, North Carolina, Kentucky-Tennessee branches of the American Society for Microbiology in Asheville, N. C., Oct. 3 and 4. Mrs. Ellers presented a paper entitled "Location of Polygalacturonic acid trans-eliminase in Erwinia carotovora ICBP-EC 153," co-authored by M. J. B. Paynter (Sect Ldr, Microbiol).

RECREATION AND PARK ADMINISTRATION

Lawrence W. Gahan (Asst Prof) attended the North Carolina Recreation and Park Society Annual Conference held in Wrightsville Beach, N. C. from Nov. 5-7. Dr. Gahan was a member of a panel and presented a talk on "Feasibility Studies in Parks and Recreation."

J. L. Stevenson (Assoc Prof) serves as Chairman of a two year Task Force for the Synod of South Carolina, Presbyterian Church, U. S. The Task Force, which held its first planning meeting in Columbia on Nov. 9, is examining and making recommendations for camp, conference and retreat programs and facilities for the eight camp and conference sites owned by the Presbyteries of the Synod, which covers the geographical area of South Carolina.

SOCIAL SCIENCES

J. W. Witt (Asst Prof) has collaborated with Gerald Rigby (California State Polytechnic College) in publishing, "Bibliographical Essay: Behavioral Research in Public Law, 1963-1967," Western Political Quarterly (September, 1969).

STUDENT AFFAIRS

Susan G. Delony (Dean Women) has been appointed American College Personnel Association's Membership Co-Chairman for South Carolina. She is a state representative on ACPA's National Membership Committee and is responsible for the planning and conduct of all Association membership procurement activities within the state. ACPA is a national professional organization composed of men and women college educators and administrators who are concerned with the professional advancement of college personnel and guidance at all levels of higher education in America.

COLLEGE OF ENGINEERING

L. G. Rich (Dean), John F. Andrews (Hd, ESE) and John H. Austin (Prof, ESE) attended the workshop on "Educational Systems for Operators of Water Pollution Control Facilities" in Atlanta, Ga., from Nov. 3 to 5. This workshop was jointly sponsored by the Federal Water Pollution Control Administration (FWPCA), Dept. of the Interior and Environmental Systems Engineering. The workshop was sponsored by a grant of \$14,000 from the FWPCA.

Dr. Austin served as director of the workshop and presented a paper on "Current University Activities for Operators of Water Pollution Control Facilities." Dr. Andrews presented a paper entitled "Future Educational Needs of Environmental Technicians." This meeting was attended by over 100 of the leading municipal, state, federal and university persons engaged in the training of personnel for the wastewater treatment plants of the nation. This included representatives from 33 states, 2 territories and Canada.

A considerable portion of the program was devoted to the latest techniques such as the design of educational systems, programmed learning, educational television and computer based instruction.

The keynote address was presented by David Dominick, Commissioner of FWPCA. The banquet address was delivered by the Hon. William C. Cramer (R-Fla.), the ranking Republican member of the House Public Works Committee.

FARM, SMALL BUSINESS INCOME TAX COURSE

Farm and Small Business Income Tax Course for tax consultants will be held this month at two locations in the state: Dec. 2-4 at the Technical Education Center in Florence for the Florence-Darlington area; and Dec. 9-11 at the Greenville Technical Education Center for the Greenville Area. The clinics are conducted by the University Extension Service in cooperation with the Internal Revenue Service, The S. C. Tax Commission and the S. C. Association of Public Accountants.

CALENDAR OF CAMPUS EVENTS

Dec.	1	Mon.	9:00 a.m.	Educational Council Meeting
Dec.	1	Mon.	4:00 p.m.	Agronomy Seminar - Speaker: Mr. John Boswell, Jr.; Relationships between arsenic and soybean development, P&AS Building, A-203.
Dec.	1	Mon.	4:00 p.m.	Seminar by Mr. H. Gordon Cunningham, Director, Trace Mineral Sales and Development, Tennessee Corporation, Atlanta, Ga.; Topic: New Developments in Micro-nutrients for Plant, Animal and Human Nutrition.
Dec.	2	Tu.	2:00 p.m.	Electrical Engineering Seminar Series -- Dr. J. W. Lathrop, "Large Schale Integration" - Room 324, Riggs Hall
Dec.	2	Tu.	4:00 p.m.	Biochemistry Seminar - Dr. J. M. Shively, Johns Hopkins University, will speak on "Lipids of Autotrophic Bacteria" - Room A-101, P&AS Building.
Dec.	3-6	W-Sat.	8:00 p.m.	Clemson Little Theatre, Food Industries Auditorium
Dec.	3	W	8:00 p.m.	Graduate Wives Club - Speaker will be Sammie Jo Stone, Home Economist, Duke Power Co., "Refreshments for the Holidays." YMCA
Dec.	3-4	W-Th.	4:00 p.m.	Chemistry Lecture Series - Speaker: G. J. Karabatos of Michigan State University, Physical-Organic Chemistry, (DuPont Lecturer) Room 131, Brackett Hall.
Dec.	4	Th.		Basketball - Auburn at Clemson
Dec.	4	Th.	4:00 p.m.	R. D. Heidenreich, Bell Telephone Labs., Murray Hill, N. J., "Some Aspects of Modern Electron Microscopy," 301 Sirrine Hall
Dec.	4	Th.	4:00 p.m.	Environmental Systems Engineering and Water Resources Engineering Seminars - Dr. Daniel P. Loucks, Assistant Professor of Water Resources Engineering, Cornell University; Ithaca, New York. <u>Stochastic Methods for Analyzing River Basin Systems</u> - Room 300, Lowry Hall.
Dec.	5	Fri.	7:30 p.m.	Glee Club Christmas Concert in Tillman Hall
Dec.	5	Fri.	4:00 p.m.	Environmental Systems Engineering and Water Resources Engineering Seminars - Edward E. Driver, Research Engineer, Engineering Laboratory, Tennessee Valley Authority; Norris, Tennessee. <u>Hydraulic Modeling of Thermal Power Plant Intake and Discharge Structures.</u>
Dec.	6-7	S-Sun.	3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre
Dec.	6	Sat.		Graduate School Foreign Language Test, Room 20 Tillman Hall

CALENDAR OF CAMPUS EVENTS Cont.

Dec.	8	Mon.	Examinations begin
Dec.	9-	Tu.-	Mid-Term Student Work Exhibit, Lee Hall Gallery
Jan.	2	Fri.	
Dec.	12	Fri.	2:00 p.m. Dr. Paul C. Berg (U.S.C.) will speak on "Language Barriers to Reading for the Culturally Different" Dr. Barbara W. Morgan (Ed.) arranged for this workshop -- Clemson House Lounge.
Dec.	13-14	S-Sun.	3:00 p.m. Clemson Area Youth Theatre, Daniel Hall Theatre
Dec.	13	Sat.	Graduate Record Examination, Room 20, Tillman Hall
Dec.	17	Wed.	Basketball - Alabama at Clemson
Dec.	18	Th.	Mid-year graduation
Dec.	20	Sat.	Basketball - L.S.U. at Charlotte, N.C.
Dec.	22-23	M-Tu.	Basketball - Clemson in Sun Bowl Classic at El Paso, Texas

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ACTION TAKEN BY BOARD OF TRUSTEES

The Clemson University Board of Trustees met December 3 in Columbia. Actions taken by the Board included:

- Approval of 1970-71 budget request to the Budget and Control Board and the General Assembly. (Continued on page 2)



UNIVERSITY OFFICIALS VISIT GREENWOOD MILLS -- President Robert C. Edwards headed a group of 42 members of the faculty and staff that were recent guests of Greenwood Mills in Greenwood. With President Edwards in the above photograph is James C. Self (right), President of Greenwood Mills and a member of the University Board of Trustees. The Clemson group toured Greenwood Mills' Adams Plant near Ninety Six and the Data Processing Center. Later in the evening, officers of Greenwood Mills entertained at a reception and dinner at the Greenwood Country Club.

ACTION TAKEN BY BOARD OF TRUSTEES Cont.

- Repeal of obsolete ordinances and adoption of traffic ordinances for the campus under municipal powers granted Clemson by the state government.

- Approval, under the University's agricultural regulatory responsibilities of various regulations relating to fertilizer inspection, control of fire ants and meat and poultry inspection.

- Naming the Livestock Laboratory Building at the Sandhill Experiment Station, Pontiac, in memory of the late Dr. Richard Williams Carter.

- Amendment of University patent policy.

- Authorization for the Administration and the Alumni Association to reach agreements regarding possible construction of an Alumni House on campus.

- Ratification of interim acts of the Executive Committee.

BLOODMOBILE HERE JAN. 23

The Circle K Club will coordinate a visit to the campus by the American Red Cross Bloodmobile on Friday, Jan. 23. The bloodmobile will headquarter at the YMCA from 10 a.m. until 4 p.m. on that date. University students, employees and citizens of the Clemson community are encouraged to participate in the Red Cross Blood Program.

COUNSELING CENTER

Dr. Virginia S. Hardie (Dir) attended the World Mental Health Assembly and the National Association of Mental Health meeting in Washington, D. C. Nov. 17-21. She also has been appointed a member of the Ethics Committee of the South Carolina Psychological Association.

MINUTES OF THE OCTOBER RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its October meeting at 4:00 p.m., October 21, 1969, in Room 28, Tillman Hall. The ad hoc committee (Janzen) investigating the need for a manual for researchers reported that such an instrument was not justified at the present time. The committee recommended that the administration be asked to conduct a survey regarding the feasibility of establishing a central laboratory for liquid scintillation counting, glass blowing, electron microscopy, etc.

Chairman Kingsland reported that according to Dean Hurst, the present policy on employment of retired personnel places the major responsibility for such decision on the employee's head of the department.

The Council instructed its chairman to protest the elimination of hooding of Ph.D.'s at commencement exercises; other, less important, activities should be terminated first.

ADMINISTRATION

Victor Hurst (Vice-Pres for Academic Affairs & Dean of the Univ), C. B. Green (Asst Dean of the Univ), and S. M. Willis (Dir, Clemson University at Sumter) attended the annual meeting of the Southern Association of Colleges and Schools in Dallas, Tex., Nov. 30-Dec. 3.

BIOLOGY DIVISION

R. K. Guthrie (Prof & Dir) had a paper published entitled "The Use of Cell Wall Immunizing Antigens for Serological Studies of Streptomyces Species," Canadian Journal of Microbiology, Vol. 15, No. 9, 1969. The paper was co-authored by Gerald R. Taylor of the Manned Spacecraft Center, Houston, Tex.

Clemson University hosted the first "South Carolina Conference on Undergraduate Education in the Biological Sciences" on Nov. 14 and 15. The conference was attended by fifty-six participants, representing twenty-two colleges and universities in South Carolina. R. P. Ashworth (Prof), botany section, A. S. Tombes (Chm), zoology section, and M. J. B. Paynter (Chm), microbiology section, represented Clemson.

Dr. Tombes chaired a panel session on "Interdisciplinary Efforts and Inter-school Cooperation."

Dr. Paynter chaired a session entitled "Relevancy of Non-Biological Science Prerequisites for the Biology Major." At this session the following Clemson faculty were invited participants: Dr. H. R. Bungay III (Interdisciplinary Studies), Dr. J. W. Kenelly (Hd of Mathematics), Dr. W. P. Byrd (Hd of Experimental Statistics), Dr. L. Crook (Food Science & Biochemistry), Dr. P. A. Steiner (Physics), and Dr. J. F. Allen (Chemistry & Geology).

CHEMISTRY

John Jacobus (Asst Prof) has received a Frederick Gardner Cottrell grant-in-aid for \$3,700 from the Research Corporation to initiate research in "Base-catalyzed Rearrangements of Keto-Acids."

ECONOMICS

Russell D. Shannon (Asst Prof) attended the annual convention of the Southern Economic Association in St. Louis, Mo., Nov. 13-15.

William C. Whitten (Prof) was recently elected to the executive committee of the Board of Directors of the newly organized S. C. Counsel on Economic Education.

ELECTRICAL ENGINEERING

J. W. Lathrop (Prof) presented a paper, "Digital Circuit Design for the 70's," at the Region III IEEE Convention in Huntsville, Ala., on Nov. 19.

ELECTRICAL ENGINEERING (continued)

B. E. Gilliland (Assoc Prof) and A. S. Collins (Grad Stu) presented a paper entitled, "Optimum Tuning of Digital Controllers Using Time-Weighted Error Criteria," at the IEEE Region III Convention at Huntsville, Ala., on Nov. 19.

Jim T. Long (Prof), Chairman of the South Carolina Section of the Institute of Electrical and Electronic Engineers, presided at the Section's Annual State Technical Conference held in Charleston on Nov. 7. Dr. Long also attended the Region III, IEEE Executive Committee meeting as Chairman of the South Carolina Section of IEEE in Huntsville, Ala., on Nov. 20.

Robert W. Snelsire (Assoc Prof) presented a paper entitled, "Concept Formulation as a Basis for Pattern Recognition," at the IEEE Region III Convention at Huntsville, Ala., on Nov. 19.

J. W. Lathrop (Prof), J. T. Long (Prof), J. C. Martin (Prof), and J. N. Thurston (Alumni Prof) attended the State IEEE Meeting in Charleston on Nov. 7. Dr. Long is the retiring State Chairman and Dr. Lathrop presented a paper on Large-Scale Integration.

ELEMENTARY AND SECONDARY EDUCATION

Gordon W. Gray (Assoc Prof) addressed the Pickens County Classroom Teachers Association on Dec. 2. The topic was: "Teachers--Are We Professionals or Are We Hired Hands?"

Barbara W. Morgan (Asst Prof) has been elected to membership in the American Psychological Association effective Jan. 1, 1970.

ENGLISH

Corinne Sawyer (Asst Prof) attended the annual meeting of the National Council of the Teachers of English in Washington, Nov. 27-29.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. E. Skelton (Asst Prof) attended the Annual Meeting of the Cumberland-Shenandoah Fruit Workers' Conference in Winchester, Va., Nov. 19-21, and presented a paper on "Field Evaluation of Acaracides for Control of Mites on Apples."

T. R. Adkins, Jr. (Prof), Edwin W. King (Prof), Larry M. Stearns (Grad Stu) and James A. Reinert (Grad Stu) attended the Annual Meeting of the Entomological Society of America in Chicago, Ill., Nov. 29-Dec. 6. Dr. Adkins is serving on the national committee on Professional Training, Standards and Status.

ENTOMOLOGY AND ECONOMIC ZOOLOGY (continued)

T. R. Adkins, Jr. (Prof) presented a paper at the South Carolina School for Pesticide Applicators at the Florence-Darlington Technical Education Center in Florence on Nov. 18. The title of his paper was "Aerial Treatment of Deer Flies." J. K. Reed (Prof) presented a paper on "Chemical Toxicity and Pesticides Residues in the Environment." The Extension Entomology workers, W. C. Nettles (Princ Spec), J. B. Kissam, C. A. Thomas, and L. M. Sparks (Assoc Specs) were on the program and served as the program committee for the meeting. Other entomological papers were given by Dr. L. E. Priester (Director, Environmental Health Laboratory), Mr. F. T. Arnold (State Medical Entomologist, South Carolina State Board of Health), Dr. L. H. Senn (State Entomologist), Mr. Norman Allen (Research Entomologist, Tobacco Insects, USDA), and Mr. A. R. Hopkins (Research Entomologist, Cotton Insects, USDA). S. B. Hays (Hd & Assoc Prof) presided at one of the sessions.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Asst Prof) was an invited panelist at a national workshop on Modeling the Eutrophication Process at St. Petersburg, Nov. 19-21. The workshop was sponsored by the Federal Water Pollution Control Administration.

J. H. Austin (Prof) was recently elected to a three-year term on the Executive Board of the American Association of Professors in Sanitary Engineering. Dr. Austin and Dr. Andrews (Prof & Hd), currently a board member, attended a meeting of the Executive Board in Washington, Dec. 2-3.

FOOD SCIENCE AND BIOCHEMISTRY

Lynn Crook (Asst Prof) discussed "Biochemistry in Biological Curriculum" as a part of a panel for the South Carolina Conference on Undergraduate Education in the Biological Sciences held at the Clemson House, Nov. 14.

HORTICULTURE

T. L. Senn (Hd) presented a talk to the South Carolina Plant Food Society in Columbia on Nov. 10. Dr. Senn also participated in the Governor's Agriculture-Business Conference which was held in Columbia, Nov. 24, in observance of National Farm-City Week.

G. E. Stembridge (Assoc Prof) and C. E. Gambrell, Jr. (Asst Prof) presented research reports at the Cumberland-Shenandoah Fruit Workers' Conference in Winchester, Va., Nov. 20-21.

F. B. Ledebor (Assoc Prof) attended the annual meeting of the American Society of Agronomy in Detroit from Nov. 10 to Nov. 14. He was chairman of one of the sessions in the C-5 (Turfgrass Management) Division.

INDUSTRIAL MANAGEMENT

James A. Turner (Asst Prof) conducted a Tax Short School on Nov. 13 at the Holiday Inn of Clemson. This was the first such event of this type at Clemson and was attended by over 100 persons. The luncheon address was delivered by the U. S. Assistant Attorney General, Hon. Johnnie McKeiver Walters from Washington, D. C.

MATHEMATICS

Joel V. Brawley (Assoc Prof) spoke at Furman University on Nov. 25 on "Elementary Algebraic Cryptography."

K. T. Wallenius (Assoc Prof) has been selected to serve as a Visiting Lecturer in Statistics for the 1969-70 academic year. The Visiting Lecturer Program is funded by the National Science Foundation and sponsored by the principal statistical organizations in the U. S.: The American Statistical Association, the Institute of Mathematical Statistics, and the Biometric Society.

MECHANICAL ENGINEERING

Eugene Harrison (Prof) and D. W. Lyons (Assoc Prof, TS/ME) attended the Winter Annual Meeting of the American Society of Mechanical Engineers at Los Angeles, Calif., Nov. 16-21. Dr. Harrison participated as a panelist on the topic "Education In Dynamical Systems and Control."

T. T. Yang (Prof) has received a \$2,000 Research Contract from the General Electric Company to make a preliminary study of the thermal interference of a multiple industrial gas turbine system.

MICROBIOLOGY SECTION OF BIOLOGY DIVISION

M. J. B. Paynter (Chm) and H. R. Bungay III (Prof, Interdisciplinary Studies) presented a joint seminar, "Defined Systems, Natural Systems, and Computer Model for Studying Microbial Ecology," on Dec. 9, at the University of Georgia, Athens. This seminar was part of the University of Georgia's Zoology Department series on Theoretical Ecology.

M. J. B. Paynter (Chm) has had two papers published: "Some Morphological Types of Bacteriophages in Bovine Rumen Contents," Applied Microbiology (November, 1969), co-authored by D. L. Ewert (Grad Stu & Belle W. Baruch Fellow in Natural Resources Biology), and W. Chalupa (Assoc Prof, DySc), and "Dynamics of Coliphage Infections in Continuous Culture," in Fermentation Advances, edited by D. Perlman, Academic Press, co-authored by H. R. Bungay III (Prof, Interdisciplinary Studies).

MILITARY SCIENCE

George K. Maertens (Prof) conducts an extensive program of speaking engagements in and around the Clemson community. His many years of military experience, combined with world-wide travel, have led to a vast store of knowledge and understanding of world conditions which enable Colonel Maertens to answer some of the questions the American people are asking today. Most recently, Colonel Maertens has been asked to manage and organize the Freedom Programs for schools in Westminster, Walhalla, and Seneca to be conducted during Sertoma Freedom Week in February.

RESEARCH COORDINATING UNIT

John H. Rodgers (Dir) and Robert H. White (Assoc Prof) attended the American Vocational Association National Convention in Boston, Dec. 5-10.

Professors Rodgers and White recently completed a series of five meetings to acquaint educational administrative personnel with a new information system in education. The meetings, attended by over 100 administrative personnel representing Area Vocational Centers, Technical Centers, and Vocational Supervision were conducted at Pendleton, Moore, Walterboro, Florence and Columbia.

Through the services of the Research Coordinating Unit, vocational education personnel throughout the state now have available to them documents from the Educational Resources Information Center (ERIC). The Research Coordinating Unit has been providing leadership in state-wide adoption of this education innovation.

TEXTILE SCIENCE

J. C. Hubbard (Assoc Prof) and E. A. Vaughn (Asst Prof) have been elected Secretary-Treasurer and Program Chairman respectively of the Piedmont Section of the American Association for Textile Technology for 1970.

Robert H. Barker (Assoc Prof) attended the Southeastern Regional meeting of the American Chemical Society at Richmond, Va., Nov. 6-8.

Robert H. Barker (Assoc Prof) presented a paper entitled, "Thermal Degradation of Flame Retardant Cotton Cellulose," co-authored by E. S. Olson (Assoc Prof), J. E. Hendrix (Grad Stu), and R. W. Millar (Grad Stu) at the National Technical Conference, American Association Textile Chemists and Colorists, in Charlotte, on Nov. 13. Dr. Barker also co-authored a paper "Principles of Reactivity of Dinitrogenous Crosslinking Agents with Cotton" by J. L. Vail (USDA), R. W. Kullman (USDA), and W. A. Reeves (USDA) on Oct. 11.

John J. Porter (Assoc Prof) spoke on "Liquid Waste Problems in the Textile Industry" in a seminar series put on by the School of Engineering, Clemson University, on Dec. 4 and 5.

TEXTILE SCIENCE (continued)

D. W. Lyons (Assoc Prof) was Chairman of the Automatic Controls Session on Control Applications at the 1969 American Society of Mechanical Engineers' annual meeting in Los Angeles on Nov. 19.

"Clemson Textile Staff Hosts South Carolina High School Guidance Counselors:" Separate programs were held in Columbia on Wednesday, Nov. 5 and in Greenville on Wednesday, Nov. 12. The meetings were hosted by the entire faculty of Clemson Department of Textiles as well as guests from the S. C. State Department of Education and key members of several large textile corporations in the state. Approximately 40 guidance counselors attended each of these sessions.

"Science in Textile Day:" On Nov. 19, 20, and Dec. 6, several hundred high school students from all over South Carolina attended Clemson's Textile Department's annual "Science in Textile Days." This program attracted primarily top high school science oriented students. The fast moving program was punctuated with interesting live demonstrations, eye-catching laboratory experiments, intriguing film presentations and in general, a dynamic introduction to the world of textiles for today's college prospects. The big job of contacting the schools and transporting the students to the Clemson campus was handled by textile personnel executives from plants throughout the state. The entire Clemson Textile Department faculty was totally involved in these big days' programs.

HONORS COUNCIL

Norman Olsen, Jr. (Chm) represented Clemson University at the annual meeting of the National Collegiate Honors Council in New Orleans from Oct. 30-Nov. 1.

SCHOOL OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

William C. Laffoday (Coordinator, Professional Development) delivered an address to the officers of Johnson & Johnson Corporation at New Brunswick, N. J., on Oct. 29, entitled "Tomorrow's Challenges for Top Management." On Oct. 30, he gave an address to the Lumite Division Management Group of Chicopee Corporation in Milltown, N. J., entitled "Developing Motivated Management." While in New York City participating in an American Association of Textile Technologists' Marketing Seminar, Mr. Laffoday delivered an address to the students in New York's Fashion Institute of Technology entitled, "Advertising and Communication in the American Marketplace."

MINUTES OF THE FACULTY SENATE, NOVEMBER 11, 1969

The Faculty Senate was called to order by President Pearce at 4:15 on November 11. The minutes were read and approved with the following corrections:

1. Change "or" to "of" in the eighth line of Sidney Hook's quotation.
2. Delete "in writing" from the Welfare Committee's request for a policy statement concerning sabbatical leave.
3. Revise statement about items of new business, stating that they "were referred to the Admissions and Scholarship Committee and Policy Committee, respectively."

President Pearce made the following announcements:

1. The President's Ad Hoc Committee on Commencement Exercises, chaired by Dr. Hal Cooledge, University Marshal, will meet Friday, November 14, for a final recommendation to President Edwards. Will report on this at the December Senate meeting.
2. AFSC action: (1) "that the University establish and operate, as soon as possible, a canteen on East Campus, and the proceeds be used in the best interests of the University." (2) that the present policy on ROTC requirements as adopted by the University Executive Council be accepted.
3. The Curriculum Committee and Educational Council recently approved that for every curriculum on campus 10 hours of ROTC will count toward meeting graduation requirements. (Therefore, it is unnecessary for the Admissions and Scholarship Committee to continue work on this issue).
4. On November 7, J. F. Pearce represented Clemson at the inauguration of President Paschal Twyman at the University of Tulsa (Oklahoma).

Regarding the issue of the elimination of Saturday classes, President Pearce observed that there was a problem of physical space with departments, that several department heads were against the elimination of Saturday classes; and that students like Saturday classes, according to several informal student surveys. He then reported that according to Dean Hurst there would be no more than one sabbatical per school for 1970-71. J. C. Mullins' motion that the Welfare Committee meet with Dean Hurst and subsequently draw up a written policy statement on sabbatical leave was passed unanimously.

President Pearce stated that free tuition for faculty children had not been in effect at U.S.C. since 1965, and currently no state institution of higher learning is permitted to offer such in South Carolina.

The matter of a grievance procedure was briefly discussed with President Pearce suggesting that the Senate could perhaps act in this capacity.

MINUTES OF THE FACULTY SENATE, NOVEMBER 11, 1969 (continued)

B. J. Prochaska, Chairman of the Policy Committee, presented the following resolutions which in turn were acted upon as indicated:

1. The Faculty Senate therefore asks the Board of Trustees to consider the amendment of its working rules to include the appointment of representative faculty members by the Faculty Senate, to membership on the Board's various working committees: unanimously passed as amended (indicated by underlining).

2. That the authors of the 1971 Self-Study Report review the 1962 Self-Study Report and modify accordingly the statement of purposes and goals of Clemson University and that the resulting statement be included in the Clemson University Announcements, the Clemson University Manual for Faculty Members and the Clemson University Student Handbook: passed as amended (indicated by underlining), thirty-four to one.

The meeting was adjourned at 5:35 p.m.

WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

The Board of Trustees of the Woodrow Wilson International Center for Scholars has decided to open in October, 1970, new fellowship and guest scholar programs in the newly renovated, original Smithsonian Institution Building.

When the fellowship program is fully operational, up to forty distinguished scholars from the United States and other countries will be selected to work in Washington for periods ranging from a few weeks to several years. In selecting these scholars, the policy adopted by the Trustees states:

"Emphasis will be placed on studies designed to increase man's understanding of significant international, governmental, and social problems and to improve the organization of society at all levels to meet such problems. The focus will be on the public policy aspects of contemporary and emerging issues which confront many peoples and, where applicable, on comparative analyses of different cultural regional and other approaches to such issues."

In the opening period at the Center, the Board of Trustees has designated two subjects on which it would like to see substantial individual and group studies undertaken and proposals developed: (1) the development of international law for ocean space; and (2) late twentieth century man in perspective, including the implications of social biology and the deteriorating environment.

For those desiring earliest commitments for fellowship appointments to begin during the three opening months of the program (October 15, 1970-January 15, 1971), nominations or applications should be received at the Center by January 15, 1970 and the Board will offer a certain number of appointments by March 15, 1970. All nominations and applications for fellowships starting during the three opening months must be received by May 1, 1970, and additional invitations for such appointments will be issued by July 1, 1970.

Information concerning this program is on file in the Office of the Assistant Dean of the University, 28 Tillman Hall, and may be consulted there.

PHYSICAL PLANT DIVISION

W. W. Black (water filtration plant operator) and R. F. Hamby (waste treatment plant operator) have received South Carolina Class C certificates in both waste water treatment and water filtration from the Board of Certification, Public Water Treatment Plant Operators. Required by state law for water and waste treatment plant operators, the certificates qualify both men for work in either type of plant.

CALENDAR OF CAMPUS EVENTS

Jan.	3-28	Sat.	What is Modern Architecture, Museum of Modern Art, Lee Hall Gallery.
Jan	5	Mon.	Orientation, New Students
Jan.	5	Mon.	9:00 a.m. Educational Council Meeting
Jan.	6	Tu.	Registration, all students
Jan.	6-8	Tu.-Th.	1:00 p.m. Regional Fertilizer Inspectors Conference at the Clemson House.
Jan.	7	Wed.	Basketball - Georgia Tech at Atlanta, Ga.
Jan.	7	Wed.	Late Registration
Jan.	8	Th.	4:00 p.m. Chemistry Lecture Series Speaker: J. L. Von Rosenberg, Jr., Clemson University, Physical-Organic Chemistry. Room 131, Brackett Hall.
Jan.	8	Th.	Classes begin.
Jan.	9	Fri.	Dental Aptitude Test, Room 20, Tillman Hall
Jan.	10	Sat.	Basketball - Virginia at Clemson
Jan.	12-14	Mon.-Wed.	The annual meeting of the South Carolina Dairy Conference will be held at Clemson.
Jan.	12	Mon.	Basketball - Maryland at Clemson
Jan.	14	Wed.	Last day for registration
Jan.	14	Wed.	The Annual Meeting of the S. C. Crop Improvement and Foundation Seed Associations along with the Seed School, sponsored by the S. C. Seedmen's Association, is scheduled - Wade Hampton Hotel, Columbia, S. C.
Jan.	15	Th.	Basketball - UNC at Clemson
Jan.	15-16	Th.-Fri.	19th Annual Pesticide Chemicals School - Clemson House



Clemson

JAN 14 1970
NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 10

January 15, 1970

UNIVERSITY RECEIVES GRANTS

Clemson University has received four grants totalling \$132,391 from federal agencies and a private company. The grants include:

- \$56,741 from the National Science Foundation (NSF) to support a University summer institute in physics for secondary school teachers.
- (Continued on page 2)



UNIVERSITY APPOINTS NEW HEAD FOOTBALL COACH -- Cecil Wayne (Hootie) Ingram, Jr. (left), defensive backfield coach at the University of Arkansas for the past three years, has been named head football coach at Clemson. Ingram's appointment was made by the University on the recommendation of Athletic Director Frank Howard (right), whom he succeeds and who retired in December after serving as Clemson's head football coach for 30 years. Ingram received the bachelor of science degree in education and the master of arts degree from the University of Alabama. As a varsity athlete at Alabama, he lettered three years in football and baseball and was named as All-Southeastern Conference defensive back in 1952. His 10 pass interceptions as a sophomore in 1952 led the nation and is still an Alabama and Southeastern Conference record. Ingram is married to the former Toni Snider (center) of Tuscaloosa, Ala. They have two daughters and a son.

UNIVERSITY RECEIVES GRANTS Continued

- \$46,265 (NSF) for promoting and improving education in the sciences at the University.
- \$27,467 from the National Aeronautics and Space Administration (NASA) for research in developing techniques and a device to measure exact rates of altitude change for use in automatic instrument-landing systems of aircraft.
- \$1,918 from General Electric Company of Greenville for studying the behavior, temperature pattern and flow pattern of hot gases discharged by industrial gas turbines.

383 DEGREES AWARDED AT DECEMBER GRADUATION

At December graduation exercises, Clemson awarded 383 degrees: 322 bachelor's degrees, 46 master's degrees, and 15 doctorates. Including ceremonies held in May and August, the University awarded 1,237 degrees during 1969, the largest number granted in one year in Clemson's history.

EXTERIOR RENOVATION OF CALHOUN MANSION CONTINUES

Calhoun Mansion is being revitalized with a fresh coat of white paint, new hand-split roof shingles and the addition of new shrubbery which will give Fort Hill a bright new look for spring when thousands of visitors flock to the campus to tour the national shrine.

Work on the mansion and grounds is being accomplished by members of the University's Physical Plant Division and is scheduled for completion by mid-March.

Plans also call for the installation of a new irrigation system for the shrubbery and the additional installation of five quartz flood lamps which will illuminate the main portico, the carriage entrance and the garden terrace.

PRESIDENT EDWARDS SERVES ON NCAA JURY

President Edwards has been appointed a member of the 12-man NCAA Theodore Roosevelt Awards Jury. His four-year term runs through Jan. 1, 1974. The award, NCAA's highest honor, is named after President Roosevelt because his concern for the conduct of intercollegiate athletics led to the formation of the NCAA in 1906. It is presented annually to an individual for whom competitive athletics in college and attention to physical well being thereafter have been important factors in a long-term career of national significance and achievement. Previous winners have included Dwight D. Eisenhower, Leverett Saltonstall and Justice Byron R. White.

MINUTES OF THE NOVEMBER RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its November meeting at 4:00 p.m., November 18, 1969, in Room 28, Tillman Hall.

Dean Hurst informed Chairman Kingsland that the current university policy on sabbatical leave permits the granting of only one leave per year per school or college. This policy, in effect for several years, is determined by lack of available funds. Council members asked why only one was allowed per college when, if the duties of each man going on a sabbatical leave is covered by others in the department, no detrimental effect to the college occurs. Others commented on the apparent unfairness of the present policy, since the various colleges at this University differ so much in number of staff.

Chairman Kingsland also reported that the hooding of Ph.D.'s would not be deleted from commencement exercises.

The Faculty Senate President John F. Pearce informed Dr. Kingsland that the Senate's Welfare Committee would be willing to take grievances of research faculty members under consideration on an individual basis. The Council instructed its chairman to request that the Research Council be represented when a research faculty member is involved, and that the mechanisms for handling such grievances be provided by the Senate Welfare Committee.

The Council discussed the proposal of merger with the Faculty Senate and agreed in principle, but not under present Senate operating procedures. Dr. Kingsland was asked to invite Senate President Pearce to a Council meeting to explain the Senate's merger proposal.

The following resolution was passed: The Research Faculty Council is aware of surplus property mechanisms in neighboring states that are far superior to South Carolina's and feels that a correction of this deficiency is needed.

CLEMSON STUDENTS INTERVIEWED BY WOODROW WILSON REGIONAL SELECTION COMMITTEE

Three students from Clemson University, Miss Elizabeth Pitts in mathematics, Mr. Robert Jamison in mathematics, and Mr. Steven Johnson in sociology, have been invited for interviews on Thursday, January 15, 1970, by the Selection Committee in Region VI of the Woodrow Wilson National Fellowship Foundation.

Seventy colleges and universities in this Region submitted nominations. Of these, forty-three have students who were invited for interviews.

ARCHITECTURE

Sam Wang (Asst Prof) attended the Southeastern Regional Conference of the Society for Photographic Education at Columbia, S. C., Dec. 5-6. One of his works is published in the 1970 Edition of the Photography Annual. His works are included in the exhibit "Iowa Photography," Museum of Art, Iowa City, October 1969. "The Manipulated Image," an exhibit organized during the spring of 1969, is currently on a national tour.

ELEMENTARY AND SECONDARY EDUCATION

L. Lawson Byrd (Asst Prof) spoke on the Status of Instructional Leadership and Supervision in South Carolina School Districts on Nov. 7 at the joint meeting of the South Carolina Association for Supervision and Curriculum Development and the Association for Student Teaching. Also, Dr. Byrd was recently appointed to the State Legislation Committee of the South Carolina Congress of Parents and Teachers.

ENVIRONMENTAL SYSTEMS ENGINEERING

John F. Andrews (Hd) and John H. Austin (Prof) attended the annual board meeting of the American Association of Professors in Sanitary Engineering (AAPSE) in Washington, D. C. on Dec. 2-3. Dr. Andrews has just completed three years of service on the board and Dr. Austin has just been elected to serve on the board for three years. The AAPSE Board met with officials of HUD AND HEW to discuss problems of mutual concern.

John H. Austin (Prof) has just been appointed to the Chairmanship of the Water Supply Operator School Committee of the American Water Works Association. This committee will assist this professional organization in the determination of the need for establishment of water treatment plant operator schools in the United States.

Ray Abernathy (Assoc Prof) and John H. Austin (Prof) attended a meeting of the Board of Certification for Water and Wastewater Treatment Plant Operators in Columbia on Dec. 17.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd), J. J. Klawitter (Asst Prof), C. D. Talbert (Grad Stu), and C. T. Fitts (Asst Prof of Surgery, Medical University of South Carolina, Charleston, S. C.) had the following paper published: "Materials of Construction for Artificial Bone Segments" pages 19-67 in Research in Dental and Medical Materials, edited by E. Korostoff, Plenum Press, (1969).

S. F. Hulbert (Hd) presented a seminar entitled "Materials of Construction for Artificial Organs" at the RCA Research Center, Princeton, N. J., on Jan. 6.

MATHEMATICS

K. T. Wallenius (Assoc Prof) has been elected vice-president of the South Carolina Chapter of the American Statistical Association.

SOCIAL SCIENCES

Bernard Caffrey (Asst Prof) and William C. Capel (Asst Prof--on leave) have published, "Negro and War Attitudes of the Same Persons Assessed at Three Points Over a Thirty-three Year Period," in Psychological Reports (1969). Professor Caffrey and two Psychology majors, Simms Anderson II and Janet Garrison, have published, "Change in Racial Attitudes of White Southerners After Exposure to the Atmosphere of a Southern University," in Psychological Reports, 1969. Professors Caffrey and Capel have also published, "Personal Bankrupts: Psychological Predictors," in the Journal of Consumer Credit Management (Fall, 1969).

ZOOLOGY

W. E. Bachop (Asst Prof) presented a paper, "Adenosine Triphosphatase Specific Activity in Mitochondrial Fractions from Respiratory-Deficient (Cytoplasmic Petite) and Respiratory-Competent (Grande) Strains of Baker's Yeast: Electron Microscopic Versus Biochemical Extrapolations to the In Vivo Ultrastructure," at the Southeast Electron Microscopy Society Meeting at the University of South Florida on Dec. 5.

A. S. Tombes (Chm) with R. M. Roppel (USDA Research Laboratory, Savannah, Georgia) presented a paper, "Electron Microscope Studies of Components of the Neuroendocrine System of the Granary Weevil, Sitophilus granarius," at the Southeast Electron Microscopy Society Meeting at the University of South Florida on Dec. 6.

A. S. Tombes (Chm) with David S. Smith (School of Medicine, University of Miami, Miami, Florida) presented a paper, "Electron Microscopy of Endocrine Tissue of Hypera postica," at the Southeast Electron Microscopy Society Meeting at the University of South Florida on Dec. 6.

ADDITIONAL GIFTS AND GRANTS

S. C. Camellia Society, \$300 to Plant Pathology for camellia pathology research.

White Plains Farm, Mountville, S. C., \$3,000 to Animal Science for polled hereford research.

American Cyanamid Company, \$500 to Plant Pathology for investigations of insecticides and nematocides.

W. R. Grace Company, Cryovac Division, \$1,000 to Food Science and Biochemistry for research involving evaluation of plastic packaging for dog food.

January 15, 1970

AMENDMENT TO UNIVERSITY PATENT POLICY

An amendment to the University Patent Policy was recommended to the Board of Trustees by its educational Policy and Student Affairs Committee and adopted at the Board meeting on December 3, 1969.

Article II, B. 1 is amended to read as follows:

Patents which arise from research projects financed wholly by University-administered funds (except those described in II, B.2) shall be the complete property of the institution and subject to such negotiation or transfer of ownership as the institution desires. If the committee decides to recommend the pursuit of a patent, the inventor shall assign the patent or invention to the University or its agent and, unless there are unusual equities the Committee shall (1) if the patent is obtained through a research foundation acting as agent for the University recommend that allowance be made for 15% of the gross income from the patent or invention to be paid directly to the inventor or inventors, (2) if the patent is obtained by the University through a patent attorney employed by the University that, after cost of securing the patent has been recovered by the University, an amount not to exceed 50% of the net receipts received by the University be paid by the University to the inventor or inventors

In the event that a patent proposal is not accepted by the institution in a reasonable period of time as determined by the Patent Committee, the Committee shall recommend that the rights to the possible patent be released by the University to the individual inventor.

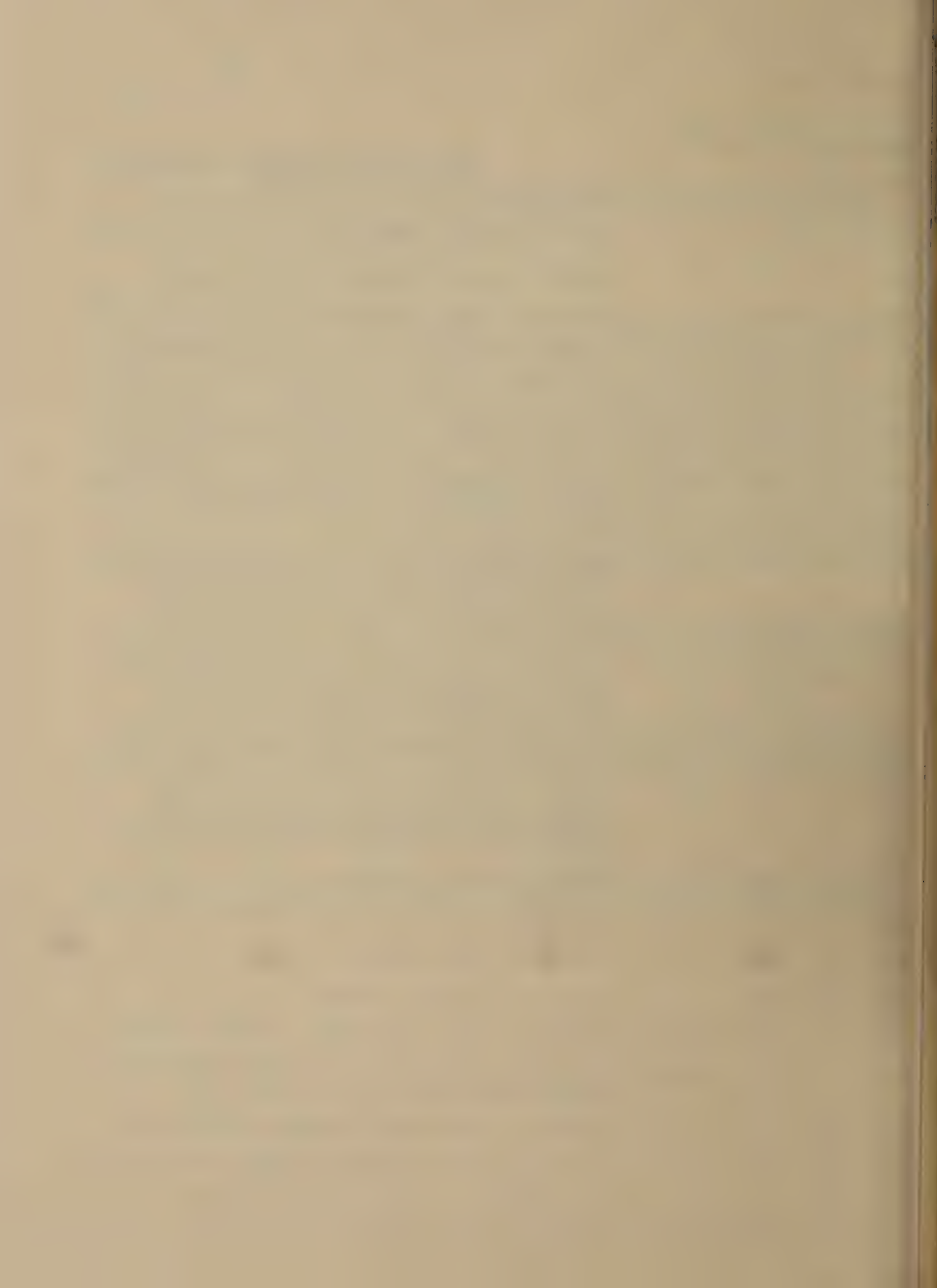
Since Clemson University is a public institution, it must be recognized that certain inventions should be public property and not subject to private development. In such cases the Patent Committee will so recommend and after proper approval the individual inventor will be notified that he has no equity.

FACULTY REPRESENTATIVE ON NATIONAL ALUMNI COUNCIL

Dr. H. H. Macaulay, Alumni Professor of Economics, will serve as Faculty Representative on the National Alumni Council for the calendar year 1970. For the past year the representative has been Dr. J. H. Stepp.

CALENDAR OF CAMPUS EVENTS

Jan.	15-16	Th.- Fri.	19th Annual Pesticide Chemicals School - Clemson House
Jan.	15	Th.	Basketball - UNC at Clemson
Jan.	17	Sat.	Basketball - Furman at Greenville, S. C.
Jan.	17	Sat.	Architectural School Aptitude Test, Room 20, Tillman Hall
Jan.	17	Sat.	Graduate Record Examination, Room 20, Tillman Hall
Jan.	19	Mon.	Basketball - Georgia Tech at Clemson
Jan.	19-20	Mon. - Tues.	Annual Nurserymen's Short Course - Clemson House
Jan.	20	Tues. 3:00 p.m.	Electrical Engineering Seminar Series - Dr. A.O. Bishop, "On-Line, Real-Time Pattern Classification" -- Room 324, Riggs Hall
Jan.	20	Tues. 7:30 p.m.	Panel discussion: "The Future of the Negro in the South Carolina Republican Party." Sponsored by Clemson Young Republicans. Daniel Hall Auditorium
Jan.	21	Wed.	The New Folk
Jan.	21-22	Wed.- Th. 4:00 p.m.	Chemistry Lecture Series - Z.W. Salsburg, Rice University, Physical Chemistry (DuPont Lecturer) Room 131, Brackett Hall
Jan.	22	Th.	Basketball - Florida State at Tallahassee, Fla.
Jan.	22	Th. 4:00 p.m.	Physics Colloquium - Dr. John E. Rives, Prof. of Physics at the University of Georgia - will speak on Thermal Heat Transfer in Magnetic Insulators - Room 101, Kinard Building
Jan.	24	Sat.	Basketball - V.P.I. at Clemson
Jan.	24	Sat.	Veterinary Aptitude Test, Room 20, Tillman Hall
Jan.	26	Mon.	Basketball - USC at Clemson
Jan.	28	Wed.	Basketball - Furman at Clemson
Jan.	29	Th. 8:00 p.m.	Shakespearean Play - "King Lear" - Tillman Hall Aud.
Jan.	29	Th. 4:00 p.m.	Chemistry Lecture Series - L. J. Todd of Indiana Univ. Inorganic Chemistry, Room 131, Brackett Hall.
Jan.	29	Th.	Annual S. C. Soybean Assoc. meeting - Columbia, S.C.
Jan. Feb.	30- 15	Fri.	College of Architecture Faculty Exhibit-Lee Hall Gallery
Jan.	31	Sat.	Basketball - N. C. State at Raleigh, N. C.



CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 11

February 1, 1970

JAN 30 1970

NEW UNIVERSITY FOUNDATION NAMED FOR BROWN

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Establishment of the Edgar A. Brown Foundation at the University with assets in excess of \$100,000 was announced at a testimonial dinner honoring the 81-year-old dean of the South Carolina legislature who is President of the Clemson Board of Trustees.

In conjunction with establishment of the foundation, a room has been set aside in the Robert Muldrow Cooper Library to house the personal papers and other memorabilia of the veteran Barnwell senator. (Continued on page 2)



"BISHOP FROM BARNWELL" HONORED - State Sen. Edgar A. Brown (right), 81-year-old dean of the South Carolina Legislature, was honored by the University recently with a testimonial dinner attended by about 350 state legislators and other officials and business leaders. Pictured with Sen. Brown are (l-r) Gov. Robert E. McNair, House Speaker Sol Blatt, and President Robert C. Edwards.

NEW UNIVERSITY FOUNDATION NAMED FOR BROWN Continued

Income from the Edgar A. Brown Foundation is to be used "exclusively for charitable, scientific, literary or educational purposes at Clemson University or in some manner connected with and related to the operation of Clemson University."

Designated by Sen. Brown as trustees of the foundation are his daughter, Mrs. Richard M. Jefferies, Jr., of Barnwell, Bankers Trust of South Carolina and President Edwards, who will serve as chairman.

SECOND CHANCE FOR ENROLLMENT IN SUPPLEMENTARY (MEDICAL) MEDICARE

Any employee who was born after October 1, 1901, and attains age 65 on or before April 30, 1970 may now secure the supplementary (medical) insurance under MEDICARE if they will make applications in a District Office of Social Security in January, February or March. This privilege is regularly available to each employee "during the month which includes his 65th birthday, or the three calendar months immediately preceding, or the three calendar months immediately following."

This unusual opportunity (January, February, March, 1970) provides a "second chance" for senior citizens who did not enroll during their regular seven-months period at age 65. Persons who enroll on schedule pay \$4.00 per month, at present, for this voluntary insurance to pay doctors' bills; others pay 10% more for each 12 months which elapse after their first opportunity to enroll. It is important for employees who are still working at age 65 to enroll for MEDICARE (hospital and/or medical) in their seven-months period if they desire this coverage. Some make the mistake of waiting until they stop work, then find it is too late. The hospital insurance is provided without charge, for it is supported by a portion of the employee's regular Social Security deduction (F.I.C.A. Tax) on earnings.

The Anderson (S.C.) District Office of Social Security is located at 114 West Greenville Street (one-half block from Sears). It is open daily except Saturdays and Sunday from 8:30 until 4:30.

COMMUNICATIONS CENTER

The University Communications Center and the Cooperative Extension Service recently produced a practical course in swine production to be aired over Educational Television outlets in 30 South Carolina counties. The eight lessons cover all phases of swine production and management for farmers and those interested in the business.

"Clemson University at Sumter --It's the Same," a 15-minute film about Clemson's center in Sumter has been completed by the Communications Center. Dr. Sam Willis, director of the Sumter Center, will show the film to high school students and citizens of the Sumter area.

ALUMNI RELATIONS

John Mann (Alumni Ed) attended the Editor's Workshop of District III, American Alumni Council, in Williamsburg, Va., Jan. 16-18. George Moore (Assoc Dir) and George Bennett (Field Dir) attended the American Alumni Council District III Conference in Williamsburg, Jan. 18-21.

PHYSICAL PLANT DIVISION

Roy M. Rochester (Plant Eng) gave a color slide presentation on an "Environmental Supervisory Control Center" and a "Central Fire Alarm System" during the monthly meeting of the Clemson Lions Club. Both systems are presently being installed in campus buildings by the Physical Plant Division.

COOPERATION WITH NORTH CAROLINA SCIENCE AND TECHNOLOGY RESEARCH CENTER

The Robert Muldrow Cooper Library is cooperating with the North Carolina Science and Technology Research Center in providing computer-based literature searches. The Center provides abstracts of pertinent articles.

The Center has search files for:

1. National Aeronautics and Space Administration (NASA); 1962--
2. Defense Documentation Center (DDC); retrospective and current files.
3. Institute of Textile Technology (ITT); 1966--
4. Education Research Information Center.

The cost of the service is \$15.00 per search to be paid for by the student, directly to the Center. Interested graduate students and faculty may obtain additional information from the reference staff.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

On Nov. 19, William C. Laffoday (Coordinator, Professional Development) addressed the Advertising Club of Greenville, S. C. His address was entitled, "Are We Really Listening?".

AGRICULTURAL ENGINEERING

The following members of the department participated in the Annual Winter Meeting of the American Society of Agricultural Engineers held in Chicago, Ill., Dec. 8-11.

A. W. Snell (Prof & Hd) served as Chairman of the Graduate Instruction Committee.

T. H. Garner (Assoc Prof) presided at a Technical Session.

C. E. Hood (Assoc Prof) presented a film on research results at a session on fruit and vegetable harvesting.

J. R. Lambert (Assoc Prof) presented a paper entitled "Dependence of Supplemental Irrigation Scheduling on Weather Probability and Plant Response to Soil Moisture Regime."

J. T. Ligon (Assoc Prof) presented a paper entitled "Estimates of Field Infiltration into Layered Soils."

B. K. Webb (Assoc Prof) presented results of a Clemson survey at a special Career Guidance Program. He also served as program chairman of Fruit and Vegetable Harvesting Committee and was elected Secretary of that Committee for a two-year period effective in July of 1970.

CHEMISTRY

J. W. Huffman (Prof) presented a paper co-authored by C. E. Opliger (Grad Stu), "Synthesis of Proaporphine Alkaloids," at the Natural Products Symposium, University of the West Indies, Mona, Jamaica, Jan. 5-9.

A. R. Pinder (Prof) presented a paper co-authored by S. J. Price (Grad Stu), "Some Chemical Constituents of Piper ovatum," at the Natural Products Symposium, University of the West Indies, Mona, Jamaica, Jan. 5-9.

ELECTRICAL ENGINEERING

Lewis T. Fitch has rejoined the faculty as an Associate Professor of Electrical Engineering after completing his graduate studies at Ohio State University. Dr. Fitch, his wife and two sons, reside at 117 $\frac{1}{2}$ Clemson Street.

ENGINEERING MECHANICS

Paul B. Zielinski (Assoc Prof) presented a paper on "Methods of Using Dispersion Theories in Hydraulics and Hydrology" to the Water Resources Technical Group, ASCE at the annual joint S. C. Section and S. C. Engineers Society meeting in Columbia, S. C. on Jan 9.

ENGLISH

Mark S. Steadman, Jr. (Assoc Prof) has a story, "Annie's Love Child," published in the Red Clay Reader, number 6.

H. Barry Hannah (Asst Prof) has a story, "Mother Rooney Unscrolls the Hurt," published in the winter issue of Carolina Quarterly.

H. M. Cox (Prof & Dean, College of Liberal Arts) and M. A. Owings (Hd) attended the annual meeting of the Modern Language Association in Denver, Dec. 26-30.

John Idol (Assoc Prof) had an article, "Thomas Wolfe and Painting" published in the current issue of Re Arts and Letters.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof & Act Hd) attended a meeting in Washington, D. C. on Dec. 18 sponsored by the Water Pollution Control Federation concerned with the implementation of a national program for the training of personnel to operate water pollution control facilities.

John H. Austin (Prof & Act Hd) represented Clemson University at a meeting of state and federal officials in Columbia on Jan. 13 on manpower needs in the water pollution control field. Also, Dr. Austin is now a contributing editor to the journal "Water and Wastes Engineering."

INDUSTRIAL MANAGEMENT

A 16 mm color "Performance Rating Film," directed by Joel L. Richardson (Assoc Prof) and filmed by James P. Burns and Charles W. Haralson, of the Clemson University Photo Laboratory, was awarded First Place in the Industrial Management Society's film competition among universities at the 33rd Annual Industrial Engineering and Management Clinic held in Chicago, Ill., on Nov. 17-19. A trophy and certificates of merit were awarded at the banquet. A print of the film will be placed in the Industrial Management Society's Film Library where it will be available to the public.

INTERDISCIPLINARY STUDIES IN ENGINEERING

H. R. Bungay III (Prof), W. J. Whelan (St. Vincent Charity Hospital, Cleveland, Ohio), and W. M. Sanders III (FWPCA, Athens, Georgia) have co-authored a paper "Microprobe Techniques for Determining Diffusivities and Respiration Rates in Microbial Slime Systems" appearing in BIOTECHNOLOGY AND BIO-ENGINEERING.

PHYSICS

R. L. Chaplin (Assoc Prof) and H. M. Simpson (former Grad Stu) published a paper in the September issue of the Physical Review entitled "Damage and Recovery of Aluminum for Low-Energy Electron Irradiations."

F. J. Keller (Asst Prof) and F. W. Patten (Naval Research Lab) have published a paper entitled "ESR Observation of Frenkel Defect Production by Post-Irradiation Electron-Hole Recombination in KCl" in the November (1969) issue of Solid State Communications.

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Hd) spoke at a recent Resource Stewardship Conference in Atlanta. The Conference was sponsored by the American Park and Recreation Society and was aimed at solving some of the problems of planning for recreation and parks.

TEXTILE SCIENCE

Scott Speares (Grad Stu) presented a paper co-authored by J. J. Porter (Assoc Prof), "A Study of the Mechanism of Fading of Malachite Green on Chemically Modified Cellulose," to the AATCC National Technical Conference in Charlotte, N. C. on Nov. 14.

J. L. Lundberg's (Assoc Prof) publications: Published October, 1969: "Diffusion and Solubility of Methane in Polyisobutylene," J. L. Lundberg, E. J. Mooney (Bell Telephone Labs), and C. E. Rogers (Case-Western Reserve Univ), J. Polymer Sci., A2, 7, 947-962 (1969). Published December, 1969: "Clustering Theory and Vapor Sorption by High Polymers," J. L. Lundberg, J. Macromol. Sci.-Phys., B3 (4), 693-710 (1969).

VOCATIONAL EDUCATION MEDIA CENTER

A. K. Jensen (Dir) was elected president of the newly formed Vocational Instructional Materials Section of the American Vocational Association at the national convention held in Boston, Mass., Dec. 5-10. Dr. Jensen also chaired the first meeting of the group on Dec. 6 and served on a panel which discussed the topic "The Status of Instructional Materials Development Across the Nation."

B. Verner Burkett (Asst Prof) and Ronald Mattox (Lect) participated in the American Vocational Association Convention held in Boston, Mass., Dec. 5-10.

The Media Center's most recent publication, Low-Cost Teacher Made Overhead Transparencies from Three Mil Trycite, written by A. K. Jensen (Dir), has been selected by Dow Chemical Company for distribution to over 1100 Colleges and Schools of Education in the United States.

A. K. Jensen (Dir) was guest lecturer at the Instructional Improvement Symposium sponsored by the Southern Regional Education Board at Mississippi State University in December. Faculty members of the state universities and junior colleges in Mississippi participated in the symposium.

CALENDAR OF CAMPUS EVENTS

Feb.	2	Mon.	9:00 a.m.	Educational Council Meeting
Feb.	2-	Mon.		Foothill College, California Redwood Association,
Mar.	5			Lee Hall Gallery
Feb.	3	Tues.	4:00 p.m.	Joint Philosophy & Physics Seminar in Room 101, Kinard Laboratory. Dr. Aristotle Scoledes of Georgia Tech will speak on "Problems in Philosophy of Physics."
Feb.	4	Wed.		Basketball - Duke at Clemson
Feb.	5-	Th.		Contemporary Photographers I & II, George Eastman
Mar.	13			House, Lee Hall Gallery
Feb.	5	Th.	8:00 p.m.	Graduate Wives Club - Speaker will be Mrs. Harlan McClure, Director of Foothills Craft Guild, "A More Creative You," YMCA
Feb.	7	Sat.		Basketball - U.S.C. at Columbia, S. C.
Feb.	7	Sat.		Admission Test for Graduate Study in Business, Room 20, Tillman Hall
Feb.	9	Mon.		Basketball - Duke at Durham, N. C.
Feb.	10	Tu.	4:00 p.m.	Biochemistry Seminar. Dr. Gilbert Leveille, University of Illinois (Urbana), will speak on, "Metabolic Consequences of Food Intake Pattern in the Rat." Room A101 P & A Building.
Feb.	11-	Wed.-	8:00 p.m.	Clemson Music Club, Food Industries Auditorium
Feb.	14	Sat.		
Feb.	12	Th.	8:00 p.m.	Concert - Norman Luboff Choir, Littlejohn Coliseum
Feb.	12	Th.	2:00 p.m.	Industrial Management & Textile Science Seminar in Sirrine Hall Auditorium. Speaker: Mr. Claude Ramsey, Pres., American Enka Corp.
Feb.	12	Th.	4:00 p.m.	Chemistry Lecture Series - Speaker: A. F. Clifford of Virginia Polytechnic Institute, Inorganic Chemistry, Room 131, Brackett Hall.
Feb.	12-	Th.-		13th Annual Pest Control Operators Short Course -
Feb.	13	Fri.		The meeting will be at the Clemson House on Feb. 12 and in Long Hall on Feb. 13.
Feb.	13	Fri.		Basketball - UNC at Charlotte, N. C.
Feb.	14	Sat.		Basketball - N. C. State at Charlotte, N. C.



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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

FEB 12 1970

Vol. 9 No. 12

February 15, 1970

CLEMSON UNIVERSITY BEGINS INSTITUTIONAL SELF-STUDY PROGRAM

The Southern Association of Colleges and Schools, of which Clemson University is a member, requires periodically an Institutional Self-Study Program by all its member institutions. The essential purpose of the Institutional Self-Study Program is the improving of educational effectiveness in institutions of higher learning, and it is the process by which accreditation of an institution is reaffirmed. Each institution of higher learning within the Southern Association is expected to engage in an Institutional Self-Study Program once every ten years.

Clemson was one of the first institutions to conduct a Self-Study when the program was first initiated by the Southern Association slightly more than ten years ago. It was in November, 1959, that a Steering Committee was appointed, and by the early spring of 1960 the various committees had been selected and the actual work of the Self-Study was well under way. By August, 1961, the Self-Study had been completed, the report to the Visitation Committee had been printed, and the Visitation itself followed shortly thereafter.

Clemson University proposes to engage in its second Institutional Self-Study during the years 1970 and 1971 preparatory to a visit from a committee of the Southern Association and for the purpose of reaffirming accreditation.

Members of the university-wide Steering Committee for this study are: W. C. Godley, Professor of Animal Science (Chairman); C. O. Caskey, Associate Professor of English (Editor and Secretary); J. V. Brawley, Jr., Associate Professor of Mathematics; H. R. Bungay III, Professor of Environmental Systems Engineering; M. B. Farrar, Office of Vice-President for Development; E. H. McCarter, Office of Vice-President for Business and Finance, and K. N. Vickery, Office of Vice-President for Student Affairs.

COMPUTER PLANNING AD HOC COMMITTEE

The appointment of an ad hoc committee on computer planning has been announced by Dr. Victor Hurst, Dean of the University. The committee will concern itself with the future needs of Clemson's academic programs as they relate to the Computer Center. The members of the committee are Dr. J. S. Lytle (College of Agriculture and Biological Sciences), Dr. L. C. Wilcox (College of Engineering), Dr. J. L. Lundberg (College of Industrial Management and Textile Science), and Dr. R. E. Haymond (College of Physical and Mathematical Sciences).

MINUTES OF THE DECEMBER RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its December meeting at 4:00 p.m., December 16, 1969, in Room 28, Tillman Hall.

Dr. John Pearce, Faculty Senate President, gave the Council his reasons for suggesting a merger between the Senate and Council, explained why the Council's merger proposal six years ago was rejected by the Senate, and answered numerous questions regarding his suggestions to the Senate committee studying the matter. Chairman Kingsland appointed Dr. W. P. Barlage to represent the Council in this merger proposal.

The Council began discussions with the Administration in October of 1968 regarding the University's sabbatical leave policy, and these have continued to the present. Dr. J. C. Fanning represented the Council at a meeting with Senate representatives, where Dean Hurst explained the current policy. Dr. Fanning submitted the following report on this November 24, 1969, discussion:

1. Prior to 1961 no sabbatical leaves were given because legislative action prevented it. From 1961 to 1969 ten leaves were granted and to the Dean's knowledge no one was turned down for leave. In the 1969-70 year six have been awarded, one each from the Colleges of Agriculture and Biological Sciences, Architecture, Engineering, Industrial Management and Textile Science, Liberal Arts, and Physical and Mathematical Sciences. Tentatively seven leaves are planned for the 1970-71 academic year. At the time of this meeting only two faculty members had definitely applied to go on leave.

2. The addition of sabbatical leaves creates new positions. Money has to be available to cover positions vacated. Enough money must be available to hire a person of equal stature as the person going on leave. When a person goes on leave the other half of his salary, if not used to hire someone, goes into the General Fund. This fund is used for new research instruments, computer center operation, repairs and maintenance of offices and research labs, etc.

3. Continuous covering by other faculty members for those on leave cannot be done. This would increase teaching loads and would be unfair to small departments.

4. Many factors are involved in picking an individual for sabbatical leave. A faculty committee was suggested as a way to determine who might go on leave. The Dean felt that this was not a good idea since a faculty committee could not weigh properly all the factors involved in the selection. The selection is best made by the Dean of the respective Colleges.

5. For the year 1970-71, one person per College may be selected to go. If all positions are not filled then more than one per College may go. Presently the selection system is flexible. The reason for this one person per College ruling was to encourage Colleges other than Architecture and Arts and Science to go. Most of those in previous years who went on sabbatical leave were from the above two Colleges.

MINUTES OF THE DECEMBER RESEARCH FACULTY COUNCIL MEETING (continued)

6. The Dean encouraged us to solicit applications for the sabbatical leave positions. If more apply, possibly more positions may become available.

7. Essentially, the University is suffering the agonies of something new - a moderate number of sabbatical leave positions. Attempts are being made to encourage applications from all areas of the campus. The method of selection is still in a state of change, but any basis for selection is open to criticism.

A retirement resolution (Borgman) was discussed and assigned to the Policy Committee (McGregor) for study and recommendation.

Dean Hurst announced the appointment of the following members as Council representatives on Academic Standing Committees:

Dr. Fanning on Special Advisory Committee for Disposal of Poisonous Chemicals; Dr. McGregor on Special Advisory Committee on Use of Radio-active Materials; Dr. R. H. Barker on Safety and Fire Prevention Committee.

The Council is still studying the surplus property question and expresses its appreciation to Dr. R. W. Henningson, Assistant Director of University Research, for his interest and assistance.

ALGERNON SYDNEY SULLIVAN AWARD

The Honors and Awards Committee invites all faculty and staff members to submit nominations for the non-student recipient of this year's Sullivan Award, which will be made on Honors and Awards Day, April 8, 1970. The award is described on page 87 of the 1969-1970 University catalog.

The nominations should be made by March 1 and sent directly to Dean C. B. Green, 28 Tillman Hall.

Non-student recipients of the Sullivan Award for the past ten years have been:

1960	C. C. Bennett
1961	J. D. Lane
1962	B. E. Goodale
1963	R. M. Cooper
1964	F. J. Jervy
1965	C. A. Arrington
1966	Virginia Earle Shanklin
1967	John Robert Roy Cooper
1968	James Francis Byrnes
1969	Inez Watson

STUDENT FINANCIAL AID

During the current school year, about one-third of the University student body participated in some type of financial assistance. These sources of financial assistance include part-time employment, loans, and grants. With aid activity virtually completed for the 1969-70 session, the University has disbursed 653 student loans and 379 scholarships or grants. Principal sources of student loans were United Student Aid Fund-202 and State loans programs-272. Of the 379 scholarships and grants awarded, 224 were from business, industry and service organizations. Athletic grants-in-aid are not included.

The typical scholarship was \$708 and the average loan was \$694 from National Defense, Clemson Student Loan Fund and United Student Aid Funds. The amount of loans made by the various state loan programs in other states is unknown to Clemson.

ANNUAL RE-WORK PERIOD - TRAVELERS INSURANCE GROUP

The annual re-work period for the Travelers Insurance Group will be February 1-March 31, 1970. Company representatives will be on campus during this period and will be available to explain the Travelers plans and coverage to any interested employee. Visits will be made to any department desiring such and at times most convenient to the respective departments.

Any present member desiring to make changes to fit their individual needs may do so at this time. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time. Anyone who desires to obtain this type of insurance coverage must make application during their first 31 days of employment, or during this rework period.

If you wish to make an appointment with one of the representatives, you may do so by contacting Mr. W. J. Stamey, Personnel Division, Extension 365

HELP PLEASE!

Incorrect or improperly addressed interoffice mail is increasing daily in the Central Mail Room. The difficulty largely centers around mail addressed to an individual without including the department or building name. Many man-hours are lost due to the fact mail carriers must perform directory service.

Please advise all personnel in your department of the importance of always listing the name of the individual, the department and the building. Compliance of this request will result in better mail service.

AGRICULTURAL EDUCATION

J. A. Hash (Asst Prof) has written a book review, When You Preside (4th edition) by Sidney S. Sutherland, which appeared in the January Agricultural Education Magazine.

AGRONOMY AND SOILS

B. J. Gossett (Assoc Prof) presented a paper entitled "Performance of Chloroxuron as Influenced by Spray Additives, Spray Volumes, and Early Morning Versus Late Afternoon Applications" at the Southern Weed Science Society meeting in Atlanta, Ga., Jan. 22.

C. E. Rieck (Asst Prof) presented a paper entitled "Microbial and Chemical Alteration of Nitratin" at the Southern Weed Society meeting in Atlanta, Ga., Jan. 21.

J. H. Palmer (Agron Asst) presented a paper entitled "Breeding for Chlorophyll Content in Maize, Zea mays L." at the Georgia Section, American Society of Agronomy in Athens, Ga., Jan. 13.

ANIMAL SCIENCE

The following presented papers at the meeting of the Southern Section, American Society of Animal Science, Memphis, Tenn., Feb. 2-4:

W. C. Godley (Prof), "The Influence of Cow Size and Condition on Calf Performance," co-authored by D. E. Ramage and J. R. Hill, Jr.

G. C. Skelley (Assoc Prof), "Effect of Breed, Sex and Weights on Pork Palatability," co-authored by D. L. Handlin.

T. E. Bonnette (Grad Stu), "Effects of Firmness, Marbling and Color on Pork Palatability," co-authored by G. C. Skelley and D. L. Handlin.

R. L. Edwards (Assoc Prof), "Use of Urea-Treated Silage or Grass by Lambs," co-authored by J. T. Gillingham and S. W. Kennedy.

S. B. Shackelford, Jr. (Grad Stu), "Electron Microscopy of the Bovine Oviduct Ampulle," co-authored by J. F. Dickey, T. M. Leland, and J. R. Hill, Jr.

Thomas M. Leland (Grad Stu), "Regression of the Bovine Corpus Luteum in the Presence of an 18-Day Embryo," co-authored by D. R. Lamond, J. R. Hill, Jr., and J. F. Dickey.

D. R. Lamond (Visiting Prof), "Nutrient Statue in Relation to Reproduction."

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) published "A Digital Simulation of Transient Oxygen Transport In Capillary-Tissue Systems," with D. D. Reneau and M. H. Knisely in the AIChE Journal.

C. E. Littlejohn (Hd), R. C. Harshman (Prof), and J. W. Hall (Assoc Prof) attended the Annual Meeting of the American Institute of Chemical Engineers in Washington, D. C. in November.

D. F. Bruley (Assoc Prof) and Ronald W. Glass, T. Arden McCracken, and Dan H. Hunt (Grad Students) presented the following papers at the Annual Analog/Hybrid Computer Educational Users Group Meeting at Clemson University on Nov. 6:

"Teaching and Learning Aspects of a Process Control Computer"

"Experiences with the Computer and the Monte Carlo Method"

"Direct Digital Control with Controller Optimization" (Demonstration on GE-312, TR-48 Hybrid System)

F. C. Alley (Prof) received \$5266 from WESTVACO to prepare final report of research project entitled "Removal and Recovery of Sulfur Compounds from Plant Stack Gases." Two patents have been applied too as a result of this work.

D. F. Bruley (Assoc Prof) presented a paper entitled, "Prediction and Measurement of Cerebral Blood Oxygenation," with D. D. Reneau, H. Bicher, and M. H. Knise at the International Symposium on Blood Oxygenation, Dec. 1, Cincinnati, Ohio.

C. E. Littlejohn (Hd) has received an unrestricted grant of \$2500 from E. I. DuPont de Nemours and Company.

D. F. Bruley (Assoc Prof) presented a seminar entitled, "Distributed Parameter Systems Analysis" at the University of New Hampshire on Jan. 7.

CHEMISTRY AND GEOLOGY

Robert D. Hatcher, Jr. (Asst Prof) was invited to participate in the 1969 Penrose Research Conference on "The Meaning of the New Global Tectonics for Magmatism, Sedimentation, and Metamorphism in Orogenic Belts," held Dec. 15-20 in Pacific Grove, on Monterey Peninsula, Calif., and to serve on the discussion panel concerned with "The Framework and Evolution of Two Classic Orogenic Regions Japan and the Appalachians."

ENGLISH

Harriet Holman (Assoc Prof) has edited Thomas Nelson Page's Kentucky Journal which is published in the current issue of The Register of the Kentucky Historical Society.

ENGLISH (continued)

John J. McLaughlin (Assoc Prof) has a review of Elder Olsen's Theory of Comedy and G. Legman's Rationale of the Dirty Joke in the fall issue of Satire Newsletter.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins, Jr. (Prof), W. B. Ezell, Jr. (Grad Stu), and sixteen students from Ent 455/755 attended the instructional workshop in Medical Entomology in conjunction with the CDC course on diseases of nature transmissible to man in Atlanta, Ga., on Jan. 20.

S. B. Hays (Hd & Assoc Prof), T. R. Adkins, Jr. (Prof), R. F. Nash, Jr. (Asst Prof), J. K. Reed (Prof), T. E. Skelton (Asst Prof), L. H. Senn (State Ent), Ross Morgan (Ent Asst, Plant Pest Regulatory Service), and Graduate Research Assistants W. B. Ezell, Jr. and J. J. Poland attended the meetings of the Southeastern Branch, Entomological Society of America, in Hot Springs, Ark., Jan. 26-29. At the meeting the following papers were presented:

W. B. Ezell, Jr. (Grad Stu) cooperating with T. R. Adkins, Jr. (Prof), M. M. Askey, Jr. (Charleston County Mosquito Abatement Program), and L. E. Priester (S. C. State Health Dept Environmental Health Lab), "A Preliminary Report on the Biology and Control of Tabanidae at the Tricentennial Exposition Site in Charleston, S. C."

T. R. Adkins, Jr. (Prof) with J. B. Kissam (Assoc Ext Spec, Ent) and W. F. Krebs III (Grad Stu), "Field Evaluation of Natural and Synthetic Pyrethroid Aerosols Against House Flies."

James J. Poland (Grad Stu) with J. B. Kissam (Assoc Ext Spec, Ent) and J. K. Reed (Prof), "Residues of DDT in Turkeys Reared on Contaminated Soil."

J. K. Reed (Prof), "Accumulation of DDT in Fish from the Environment."

James J. Colcolough (former Grad Stu) with J. K. Reed (Prof) and L. E. Priester (S. C. Health Dept Environmental Health Lab), "Some Effects of DDT and Malathion on the Hemolymph of a Crayfish."

S. B. Hays (Hd & Assoc Prof), "Behavior of the Wild Plum Curculio, Conotrachelus nenuphar, in South Carolina" which was prepared in cooperation with D. M. Gaydon (Ent Asst, Plant Pest Regulatory Service).

From the USDA, Winter Vegetable Insects Investigations Laboratory, Charleston, S. C., J. O. Onsager (Dir) and Augustine Day (Res Ent), "UV Light Traps for Southern Potato Wireworm Adults."

S. G. Turnipseed (Assoc Prof, Edisto Station), "Efficacy of August 20 Application of Sevin, Azodrin, and Temik Against Velvetbean Caterpillars on Soybean Pods and Foliage in September," and "Increased Numbers of Heliothis zea on Soybeans Caused by Control of Parasites and Predators with Early Application of Certain Insecticides."

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof) served as co-chairman for a seminar on Cross-connection Control on Jan. 27-28 in Columbia. Over 200 persons attended this meeting which was directed toward how to control improper connections to water supply systems.

B. C. Dysart (Asst Prof) presented a paper entitled "Implementation of Water Quality Plans by Regional Authorities" at the American Society of Civil Engineers' National Water Resources Meeting in Memphis on Jan. 27. Co-author of the paper was H. H. Macaulay (Alumni Prof, Econ).

A. R. Abernathy (Assoc Prof) and B. C. Dysart (Asst Prof) presented a seminar to the Biology Department at Furman University, Jan. 20. They discussed Water Resources Management and Pollution Control in the Reedy River Basin.

FORESTRY

K. Lehotsky (Prof) has been appointed chairman of the ad hoc Committee on Conservation by the Board of Directors of the South Carolina Forestry Association. This committee is charged with formulating a broad conservation policy statement for the association.

INDUSTRIAL EDUCATION

Alfred F. Newton (Prof & Hd), by invitation of the Department of Education, State of New Jersey, attended the Regional Leadership Conference for Vocational Education in Houston, Tex., Jan. 28-30. The topic of the conference was "Educational and Professional Development of Vocational Instructors and Administrators."

J. Page Crouch (Asst Prof) and Raymond S. Fedele (Grad Asst) developed and presented a display on Graphic Arts Education at McAlister Square in Greenville, S. C., during International Printing Week, Jan. 11-17.

J. Page Crouch (Asst Prof) was a guest on WFBC-TV on "Today In The Piedmont" and addressed the Greenville Club of the International Association of Printing House Craftsmen on Jan. 15 on the Graphic Arts program in the Department of Industrial Education at Clemson.

INDUSTRIAL MANAGEMENT

Clinton H. Whitehurst (Prof & Hd - on leave) has edited a new publication entitled "Merchant Marine Policy," a special analysis. This book was published by American Enterprise Institute for Public Policy Research and contains a detailed analysis of the background, the current condition, and future evaluations of U. S. Merchant Marine service. It has just been released and is being distributed presently.

F. Ray Gray (Assoc Prof) served as a panelist on a Personal Finance Seminar sponsored by Western Carolinas Chapter of National Association of Accountants on Dec. 5.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) and F. A. Young (Asst Prof) received \$56,879 from the National Institute of Arthritis and Metabolic Diseases to continue their research on the "Use of Ceramics in High Stress Internal Orthopaedic Appliances."

The Division of Interdisciplinary Studies received a grant of \$17,565 from the General Electric Company for the establishment of an X-ray Diffraction Laboratory.

S. F. Hulbert (Hd) participated in January meeting of the Engineering and Urban Health Sciences Study Section Meeting of the Environmental Control Agency in Washington, D. C.

H. R. Bungay (Prof) edited a symposium on Continuous Culture of Microorganisms appearing in Biotechnology and Bioengineering.

H. R. Bungay (Prof), W. J. Whalen (St. Vincent Charity Hospital, Cleveland, Ohio), and W. M. Sanders III (FWPCA, Athens, Ga.) have published an article "Microprobe Techniques for Determining Diffusivities and Respiration Rates in Microbial Slime Systems" in Biotechnology and Bioengineering.

MATHEMATICS

B. J. Prochaska (Asst Prof) spoke for the Palmetto Section of the American Society for Quality Control on Jan. 20. The title of his talk was "Cumulative Sum Charts."

MECHANICAL ENGINEERING

Prof. J. K. Johnson will direct a seminar on "Industrial Noise Abatement" at the Holiday Inn of Clemson on Tuesday, February 24, 1970. Scheduled to appear on the program are Mr. John R. Ballentine, President of Acoustics and Vibration Associates, Atlanta, Georgia; Dr. Eugene Harrison, Draper Professor of Mechanical Engineering; Alumni Professor D. W. Bradbury of Mechanical Engineering; and Dr. D. W. Lyons of the Department of Mechanical Engineering and the Department of Textile Science. Dr. Hugh Macaulay, Alumni Professor of Economics, will speak at the Luncheon, Topic: "Loophole Logic." Jointly sponsoring the seminar are the Department of Mechanical Engineering, Clemson University, the Greenville Section of the American Society of Mechanical Engineers, and the South Carolina Technical Services Program of the State Development Board. Registration or additional information may be obtained from Professor R. A. Banister, Office of Industrial and Municipal Relations, College of Engineering, 112 Riggs Hall.

MILITARY SCIENCE

Representative L. Mendel Rivers (Dem, S. C.) will attend the Military Banquet to be held in Harcombe Commons on Mar. 6. Representative Rivers, Chairman of the House Armed Services Committee, will deliver the after dinner address. Additional information will be disseminated when obtained.

PLANT PATHOLOGY AND PHYSIOLOGY

N. Dwight Camper (Asst Prof) attended the Annual Meeting of Southern Weed Science Society in Atlanta, Ga., Jan. 20, 21, and 22, and served on committee responsible for judging student contest presentation.

National Science Foundation has approved a grant in the amount of \$12,442 to support the Student Science Training Program for highly talented high school students. Information can be obtained from Dr. N. Dwight Camper, Director.

The following members of the Plant Pathology and Physiology Department attended the Southern Division, American Phytopathological Society, meetings in Memphis, Tenn., Feb. 2-4: L. W. Baxter, Jr., (Assoc Prof), W. M. Dowler, (Res Plant Path), G. C. Kingsland (Assoc Prof), and F. H. Smith (Ext Plant Path). The papers presented were as follows:

G. C. Kingsland (Assoc Prof), "Barley Leaf Stripe Control by Vitavax."

W. M. Dowler (Res Plant Path), "Effect of Temperature on Composition of Pythium irregulare and P. vexans," co-authored by H. F. Cantrell.

F. H. Smith (Ext Plant Path), "A New Nematode Problem in South Carolina."

The Department of Plant Pathology and Physiology will present a three-part seminar series on the population crisis in Room 222, Long Hall, at 4:00 p.m., Feb. 25, Mar. 4, and Mar. 11.

SOCIAL SCIENCES

W. C. Capel (Asst Prof) read "Some Correlates of Heroin Addiction in New Orleans," before the First Governor's Conference on Drug Addiction and Alcoholism at Miami Beach, Jan. 12.

R. S. Lambert (Prof) read "South Carolina, 1763-1800," the second in a series of Tricentennial lectures on South Carolina history sponsored by the South Carolina Historical Society and the Junior League of Charleston, in Charleston, Jan. 19.

The following history teachers attended the annual meetings of the American Historical Association in Washington, Dec. 28-30: S. M. Appell (Instr), C. A. Grubb (Asst Prof), A. D. McClare (Instr), H. F. McMains (Asst Prof), R. L. Saunders (Instr), and A. Viglione (Instr).

J. L. McCollough (Asst Prof) attended the annual meeting of the American Philosophical Association in New York, Dec. 27-30.

S. N. Cole (Asst Prof) has published, "School Attitudes of Southern Negro Students," Journal of Negro Education (1969). He has also published, in collaboration with R. L. Williams, "A Study of MMP: Norms for College Students," Journal of Educational Research (1969).

SOCIAL SCIENCES (continued)

Bernard Caffrey (Asst Prof) and Clarice Jones (undergrad) have published "Racial Attitudes of Southern High School Seniors: A Complex Picture," Journal of Social Psychology (1969).

TEXTILE SCIENCE

E. S. Olson (Assoc Prof) has been invited to present a paper at the Gordon Research Conference, Colby College, New Long, N. H., on July 9. The paper, resulting from research work currently being done in the Textile Chemistry graduate program, will be entitled "Diffusion Rates of Cationic Dyes in Acrylic Fibers from Organic Solvent Systems."

Charles G. Vaughan (Instr) gave a seminar entitled "Textile Research Problems for Physicists" at Western Carolina University on Jan. 12.

J. L. Lundberg (Assoc Prof) has been appointed to the Council Committee on Chemical Education of the American Chemical Society. He serves as Councilor from the Western Carolina Section, A.C.S.

John J. Porter (Assoc Prof) presented an invited paper on "The Treatment of Textile Waste" to the Southeastern sectional meeting of the American Association of Textile Chemists and Colorists on January 24.

J. L. Lundberg (Assoc Prof) is presenting the annual professional development course of the Western South Carolina Section of the American Institute of Chemical Engineers. The course entitled "Introduction to Polymer Chemistry" meets Thursday evenings at Greenville Tech.

Robert H. Barker (Assoc Prof) presented lectures on "The Effect of Model Flame Retardants on the Thermal Decomposition of Cellulose" to the United Merchants Research Center, Langley, S. C., on Jan. 22, and to the Southern Research Institute, Birmingham, Ala., on Jan. 27.

A grant for the study of Development and Characterization of New Flame Retardants for Cotton, sponsored by the National Cotton Council of America, was received in the amount of \$40,000 for the calendar year 1970 to support both post-doctorate and graduate research.

ZOOLOGY

A. S. Tombes (Chm) represented the South Carolina Academy of Science in the Council Meeting of the American Association for the Advancement of Science at Boston on Dec. 26-30.

E. D. Brodie (Asst Prof) presented a paper, "Geographic Variation and Systematics of the Salamander Plethodon vankykei" at the Herpetologists' League Meeting in association with the AAAS at Boston, Dec. 26-30.

ZOOLOGY (continued)

R. T. Sawyer has written "The Leeches of Louisiana, with Notes on Some North American Species" published in Proceedings of the Louisiana Academy of Science 30:32-38 and "Notes on the Natural History of the Leeches on the George Reserve, Michigan" published in the Ohio Journal of Science 67(4):226-228.

COLLEGE OF ENGINEERING

National Engineer's Week will be observed February 22-27, 1970. The theme of this 20th annual observance will be "Engineering--Environmental Design for the 1970's."

The College of Engineering of Clemson University will participate in this national observance by sponsoring a conference on "Engineering for Mankind" for approximately 300 selected high school juniors and seniors on Thursday, February 26.

The Departments of Agricultural, Ceramic, Chemical, Civil, Electrical, and Mechanical Engineering will present laboratory demonstrations, discussions, and lectures depicting ways in which engineering principles are used to serve mankind.

WASHINGTON SUMMER INTERN PROGRAM

A "Washington Summer Intern Program," under the auspices of the U. S. Civil Service Commission is being established. For the summer of 1970, 400 outstanding college students will be brought to Washington to be "placed in carefully identified positions doing meaningful work" in federal agencies "for the summer at salaries commensurate with their qualifications."

Students are nominated by their universities, and Clemson is entitled to nominate three students for consideration. Nominees should have completed sixty college credits by the summer and GPR's of 3.5 or higher. Institutional nominations must be submitted by February 28. Faculty members or department heads who know of qualified and interested students should urge students to get in touch with the screening committee, c/o Department of Social Sciences, 105 Hardin Hall (Ext. 478,479).

COMMUNICATIONS CENTER

Jim Burns (Mgr Tech Ser) and Tom Greer (Prod-Dir) attended a television production workshop at the Educational Television Center in Columbia Jan. 30.

Jim Burns (Mgr Tech Ser), Earl Cosens (Chief Eng), Tom Shockley, Bill Osteen and Dave Garrison (Photographers) attended a one-day seminar on movie productions sponsored by Arriflex Corporation in Atlanta, Ga. Feb. 1.

SCHOOL OF NURSING

Mrs. Dorothy H. Davenport (Assoc Prof) associate degree program attended a "Teaching with Television Workshop" at the Southern Region Educational Board in Athens, Ga. Dec. 8-12.

This was the first part of a two session workshop conducted for nursing faculty who are now using or interested in using television as a part of the educational process. The second part of the workshop will be held in July.

Dr. Margaret McLaughlin, assistant surgeon general and chief nurse officer of the U. S. Public Health Service, will present a lecture on Tuesday evening Feb. 17.

Dr. McLaughlin, whose visit is sponsored by the University Lecture Series and the School of Nursing, will discuss "Citizen and Professional Collaboration for Health Care" at 8 o'clock in Daniel Hall auditorium.

Miss Regina Thompson (Assoc Prof) attended the 19th Annual Southern Conference on Gerontology in Gainesville, Fla. Feb. 1-3.

The conference was sponsored by the Institute of Gerontology and the Division of Continuing Education of the University of Florida in cooperation with the Florida Council on Aging and the Florida Bureau on Aging.

CALENDAR OF CAMPUS EVENTS

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|------------|------------|-----------|--|
| Feb. 17 | Tues. | 3:00 p.m. | Electrical Engineering Seminar Series - Dr. D. C. Amoss, "Fetal Electrocardiography" - Room 324, Riggs Hall |
| Feb. 17 | Tues. | 8:00 p.m. | Clemson University Annual Lecture Series, School of Nursing presents: Miss Margaret McLaughlin, Assistant Surgeon General and Chief Nurse Officer, U. S. Department of Health, Education and Welfare, Public Health Service - Daniel Hall Auditorium |
| Feb. 17-18 | Tues.-Wed. | | Poultry Health & Management Short Course at Clemson |
| Feb. 17 | Tues. | 7:30 p.m. | The Morrison Elementary School Parent-Teacher Organization presents The Greenville Symphony Orchestra in a young peoples concert - Littlejohn Coliseum -- Admission 49¢ |
| Feb. 18 | Wed. | | Basketball - Wake Forest at Winston-Salem, N.C. |
| Feb. 18-21 | Wed.-Sat. | 8:00 p.m. | Clemson Players, Daniel Hall Theatre |
| Feb. 18 | Wed. | 4:00 p.m. | Plant Pathology and Physiology Seminar - Dr. C.C. Black of the Department of Biochemistry of the University of Georgia will speak on "Development of the Concept of Two Distinct Groups of Higher Plants" -- 222 Long Hall |
| Feb. 19 | Thur. | 4:00 p.m. | Physics Colloquium - Dr. C. Victor Briscoe, Prof. of Physics at the University of North Carolina, will speak on "Superconducting Electron Tunneling (with clues to higher transition temperatures)" Room 101, Kinard Laboratory |
| Feb. 19 | Th. | 3:00 p.m. | Industrial Management Graduate Seminar Series 1969-70 Earl Davis Professor of Accounting, Graduate School of Business Administration, University of Ga. -- "Price Level Changes." Sirrine Hall Auditorium |
| Feb. 21 | Sat. | | Basketball - Virginia at Charlottesville, Va. |
| Feb. 23 | Mon. | | Basketball - Maryland at College Park, Md. |
| Feb. 23-27 | Mon.-Fri. | | In-Service Training Program in Community Development will be at Clemson. Resource Development - County Leaders only |
| Feb. 23 | Mon. | | Agronomy Seminar-Dr. J. C. Burns, USDA, Raleigh, N.C. will speak on Forage Quality of Crownvetch and Lespedeza. Room A-203 P&AS |

CALENDAR OF CAMPUS EVENTS Continued

- Feb. 24 Tues. 8:00 p.m. Dr. Richard N. Current, University Distinguished Professor of History in the University of North Carolina at Greensboro, will present a lecture, "Reconstruction Reconsidered," in the Daniel Hall Auditorium.
- Feb. 25 Wed. 4:00 p.m. Environmental Systems Engineering Seminar in 300 Lowry Hall. Dr. G. Fred Lee, Water Chemistry, The University of Wisconsin, will speak on "Exchanges at the Mud Water Interface in Lakes"
- Feb. 25- Wed.- 4:00 p.m. Chemistry Lecture Series - R. Hoffman, Cornell University
26 Th. Physical Chemistry (DuPont Lecturer) -- Room 131, Brackett Hall
- Feb. 26 Th. 8:00 p.m. Concert - Stockholm Philharmonic Orchestra, Littlejohn Coliseum
- Feb. 28 Sat. Basketball - Wake Forest at Clemson
- Feb. 2 Mon. 9:00 a.m. Educational Council Meeting
- Feb. 5 Th. 8:00 p.m. Graduate Wives Club - Speaker will be Dr. Harold Cooledge, Alumni Professor of Architecture, YMCA

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INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 13

March 1, 1970

SYMPOSIUM ON IMPROVEMENT OF INSTRUCTION

A Symposium on the Improvement of Instruction designed to integrate the principles of better teaching theory and techniques within the various departments of the College of Agriculture and Biological Sciences will be held March 6, 10, 11, and 12.

The Symposium, administered by an interdisciplinary committee in the College encompasses the efforts of teaching and research faculty, Extension staff, and students. It will play a distinct roll in furthering communications between the faculty and students.

The Symposium brings two prominent individuals to Clemson. Mr. Stanley Finch, Greenville business executive, teacher, and public speaker, will speak on "The Public Image of Agriculture." Dr. N.D. Peacock, Dean of Resident Instruction Emeritus in the University of Tennessee's College of Agriculture, will explore the theme of "A Quest for Excellence" in college instruction.

Dr. Peacock, an authority in the field of instruction improvement, will conduct two seminars in this area - "Good Teaching -- What is It?" and "Motivation -- Teacher-Student Interaction."

There will also be comprehensive discussion sessions among college personnel on such questions as objectives, motivation, innovation, curriculum, testing, and image.

THE SOCIETY OF THE SIGMA XI INITIATION BANQUET

The Society of the Sigma Xi will hold its annual Initiation Banquet at the Clemson House on Friday, March 6, at 7:00 p.m. The speaker will be the Honorable John C. West, Lieutenant Governor of South Carolina.

5-STATE SOUTHEASTERN FERTILIZER CONFERENCE

The Agronomy and Soils Department and the Fertilizer Inspection and Analysis Department will sponsor the 5-State Southeastern Fertilizer Conference at the Clemson House on Wednesday and Thursday, March 25 and 26, 1970. Prior to the 5-State Fertilizer Conference the sub-Regional Committee of S-52, Soil Test Calibration, will meet at 1:30 p.m., Wednesday in Room F-150, Plant and Animal Science Building.

AD HOC COMMITTEES APPOINTED

President Edwards has appointed the following ad hoc committees to assist in the planning of new campus buildings or the renovation and modernization of existing facilities:

-- Renovation and modernization of Engineering Services Building: S. G. Nicholas (chairman), Everett Laitala and R. S. Collins.

-- Renovation and modernization of Riggs Hall: S. G. Nicholas (chairman), L. C. Wilcox, T. C. Hardin and R. S. Collins.

-- Proposed new electrical and mechanical engineering laboratory building: S. G. Nicholas (chairman), L. C. Wilcox, T. C. Hardin, H. W. Busching, S. F. Hulbert, H. E. McClure, M. A. Wilson and R. S. Collins.

-- Renovation and modernization of Lowry Hall: S.G. Nicholas (chairman), H. W. Busching, R. W. Moorman and R. S. Collins.

-- Expansion of the Robert Muldrow Cooper Library building: R. S. Collins (chairman), Horace H. Williamson, Elmer H. McCarter, John L. Idol and J.W. Gordon Gourlay.

-- Renovation and remodeling of Tillman Hall: H. F. Landrith (chairman), Herbert Brantley, L. H. Davis, A. K. Jensen, M. A. King, A. F. Newton, E. N. Tyndall and R. S. Collins.

-- Renovation and modernization of Earle Hall: S. G. Nicholas (chairman), C. E. Littlejohn and R. S. Collins.

-- Renovation and modernization of Olin Hall: S. G. Nicholas (chairman), G. C. Robinson and R. S. Collins.

-- Renovation of the Plant and Animal Science Building basement: W. H. Wiley (chairman), O. B. Garrison, J. W. Jones, R. C. Hubbard, J. P. Burns, H. H. Hill and R. S. Collins.

-- Renovation and modernization of the Agricultural Engineering Building: W. H. Wiley and L. G. Rich (co-chairmen), W. T. O'Dell, O. B. Garrison, A. W. Snell and R. S. Collins.

ALUMNI AFFAIRS

John C. Mann (Alumni Ed) is author of an in-depth study on engineering education, "Engineering: An Academic Dilemma," that is prominently featured in the December-January issue of Journal of College Management.

ADMINISTRATION

K. N. Vickery (Dean, Adm & Reg) gave the keynote address entitled "A Professional Approach Through AACRAO" at the 17th Annual Meeting of The Georgia Association of Collegiate Registrars and Admissions Officers held at Jekyll Island, Ga., Feb. 9-10.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. J. Lanham (Hd) served as chairman and discussion leader of the session on "Management of the Southern Rural Resource Complex to Meet Increasing Urban Demands" at the joint meeting of the Southern Agricultural Economics Association (SAEA) and the Rural Sociology Section of the Association of Southern Agricultural Workers, Memphis, Tenn., on Feb. 2. Dr. Lanham also served as vice-president of SAEA.

William W. Hall, Jr. (Grad Res Asst) presented a paper, "The Use of Central Place Theory and Gravity Flow Analysis to Delineate Economic Areas," at the meeting of the Southern Agricultural Economics Association (SAEA) of the Association of Southern Agricultural Workers, Memphis, Tenn., on Feb. 2. J. C. Hite (Asst Prof - on leave) was co-author of the paper.

V. A. Boyd (Assoc Prof) attended the meetings of the Rural Sociology Section of the Association of Southern Agricultural Workers in Memphis, Tenn., Feb. 2-4, and presented a paper entitled "Changes in Educational Aspirations from Sophomore Year to Senior Year of a State-wide Sample of South Carolina High School Students." J. S. Lytle (Asst Prof) co-authored the paper.

AGRICULTURAL ENGINEERING

B. K. Webb (Assoc Prof) presented a program on Mechanical Harvesting of Peaches at the South Carolina Peach Council and Promotion Board Meeting in Charleston, S. C., Feb. 3.

The following members of the department participated in the Southeast Region Meeting of ASAE in conjunction with ASAW in Memphis, Tenn., Feb. 2, 3, and 4:

T. H. Garner (Assoc Prof) presented a paper entitled "Damage to Cottonseed in Seed Cotton Conveying Fans as Influenced by Design Parameters." Dr. Garner also served as Secretary of ASAE and was elected Chairman for 1970-71.

T. V. Wilson (Prof) presided at one of the sessions.

C. V. Privette (Asst Ext Spec) presented a paper entitled "Irrigation of Commercially Grown Snap Beans in South Carolina."

CHEMISTRY

Several faculty members have recently presented technical lectures before chemistry groups in the region:

J. F. Allen (Assoc Prof) at the Baptist College of Charleston, S. C.

J. R. Bacon (Asst Prof) at South Carolina State College, Orangeburg, S. C.

F. B. Brown (Assoc Prof) at Wake Forest University, Winston-Salem, N. C.

J. C. Fanning (Assoc Prof) at Queens College, Charlotte, N. C.

John Jacobus (Asst Prof) at Mercer University, Macon, Ga., and Georgia State College, Milledgeville, Ga.

A. R. Pinder (Prof) at Eastern Carolina University, Greenville, N. C.

H. G. Spencer (Prof) meeting of the Carolina-Piedmont Section of the American Chemical Society, Charlotte, N. C.

J. L. von Rosenberg (Assoc Prof) at Western Carolina University, Cullowhee, N. C.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Edwin W. King (Prof) visited Savannah, Ga., on Feb. 13 for a conference with USDA entomologists concerning cooperative research under way at Clemson.

Harold A. Loyacano (Asst Prof) attended the convention of Catfish Farmers of America in Hot Springs, Ark., on Feb. 5, 6, and 7. He presented a paper entitled, "Mechanical Aeration to Increase Production of Catfish in Ponds." Also, Dr. Loyacano attended the meetings of the World Mariculture Society in Baton Rouge, La., on Feb. 9 and 10.

The 13th Annual Pest Control Operators School sponsored by the Department of Entomology and Economic Zoology was held at the Clemson House on Feb. 12 and 13. Officers for 1970 for the South Carolina Pest Control Association were elected as follows: President - Mack Boger, Efirds Exterminating Co., Greenville; Vice-President - Ed Powell, Thompson Bros. Exterminating Co., Spartanburg; Secretary-Treasurer - Ralph Garrison, Garrison Pest Control Co., Florence; and Board of Directors - E. W. Maxey, M & M Pest Control Co., Smoaks; W. J. Smith, Smith Termite Control, Anderson; Gene Kizer, Control Services of Charleston; and Tim Drake, Efirds, Spartanburg.

On Feb. 13 Dr. Herbert H. Ross of the Department of Entomology, University of Georgia, Athens, Ga., delivered a lecture to the Clemson Chapter of the Society of Sigma Xi entitled, "Origin of the Great Plains Biomes."

MATHEMATICS

Joel V. Brawley, Jr. (Assoc Prof) representing the Mathematical Association of America and Clemson University, gave lectures on the campuses of Virginia Military Institute in Lexington, Va. and Chowan College in Murfreesboro, N. C. on Feb. 4, 5, and 6.

MILITARY SCIENCE

George K. Maertens (Hd & Prof) spoke at the Shiloh community center on Feb. 3. The subject of his talk was the situation in Vietnam.

PHYSICS

F. J. Keller (Asst Prof) and F. W. Patten (Naval Research Lab) have published a paper entitled "EPR Identification of the Structure of the V_1 Color Center in KCl" in the November issue of the Physical Review.

R. L. Chaplin (Assoc Prof) and H. M. Simpson (former Grad Stu) have published a paper entitled "Interstitial Migration in Aluminum" in the November issue of the Physical Review.

POULTRY SCIENCE

M. A. Boone (Prof) served as Secretary-Treasurer of the Poultry Section of ASAW during the past year and was elected Vice-President for 1970-71.

The Poultry Science Department received a grant of \$2500 from Radlo of Georgia, Inc. Gainesville, Ga. This is in support of a study on "Production of Eggs with Low Cholesterol Content." Project leaders are D. E. Turk (Assoc Prof) and B. D. Barnett (Prof & Hd).

Members of the Poultry Science Department who attended the Association of Southern Agricultural Workers and Southern Regional Avian Environmental Physiology and Bioengineering Study Group meetings in Memphis, Tenn., Feb. 1-4 included B. D. Barnett (Prof & Hd), M. A. Boone (Prof), J. E. Jones (Asst Prof), and V. V. Kummero (Grad Asst). Dr. Kummero presented a paper entitled: "Lysine and Total Sulfur Amino Acid Requirement of Starting Turkey Poults." This paper was co-authored by J. D. Jones (Asst Prof) and C. B. Loadholt (Asst Prof, ExSt).

RESEARCH COORDINATING UNIT

Robert White (Assoc Prof) recently attended two meetings on evaluation of vocational education programs. The first was by invitation to a National meeting in Columbus, Ohio, on Jan. 21 and 22 where the participants drafted tentative guidelines for use in each of the states. Feb. 4 and 5, Dr. White attended a regional meeting in Nashville, Tenn., of state leaders in vocational education. The central theme of this meeting was the role of state advisory councils in evaluation.

RESEARCH COORDINATING UNIT (continued)

John H. Rodgers (Dir) has been elected to serve as a member of the Advisory Council of the American Vocational Association. Dr. Rodgers is currently serving on the Advisory Council of the Center for Occupational Education at North Carolina State University. He is also a member of the Southwide Research Coordinating Council for Occupational Education.

John H. Rodgers (Dir) spoke on "Innovations in Education," to the Westminster Lions Club at a meeting in the new elementary school on Feb. 2.

ZOOLOGY

Edmund D. Brodie, Jr. (Asst Prof) with Robert M. Storm (Oregon State Univ) wrote two accounts in the Catalogue of American Amphibians and Reptiles published January 16, 1970 by the American Society of Ichthyologists and Herpetologists. The accounts were: Plethodon dunni (82) and Plethodon vehiculum (83).

FORT HILL DAY SCHOOL

1970-71 enrollment applications for first and second grade are being accepted by the Fort Hill Day School. Admission is on the basis of pre-testing rather than strict chronological age. The school is also seeking to locate a Montessori-trained pre-school teacher. Interested faculty please call Dr. Patricia W. Wannamaker, 654-3442.

PHYSICAL PLANT DIVISION

James H. Pitts (Air Cond and Refrig Mech) has been named "Employee of the Month" for January in the division. R. S. Collins (Director) presented a certificate to Pitts, recognizing excellence in job performance. A permanent plaque will bear the name of each recipient in 1970. Pitts, who was employed by the division in June, 1965, is the first recipient of the new award.

INGRAM TO SPEAK AT FORT HILL CLEMSON CLUB BANQUET

Head Football Coach Cecil Ingram will be guest speaker at the Clemson Week Around the World Banquet sponsored by The Fort Hill Clemson Club on Monday, April 20, at the Clemson House. It will be Ingram's first appearance before an Alumni or IPTAY group. Social hour begins at 7 p.m., followed by dinner at 8. Due to limited space, only 300 tickets will be sold. Tickets, \$5 each, are available at the Alumni Office in the Trustee House or the IPTAY office in Fike Field House.

NEWSLETTER DEADLINES

Deadline for submitting information for Newsletters issued on the first of each month is the 20th of the previous month; for Newsletters issued on the 15th, deadline is the 5th of each month. All calendar items should be submitted directly to Office of Public Relations. Information relating to areas under the offices of the President, Vice President for Financial Affairs, Vice President for Student Affairs, Vice President for Development and Vice President for Executive Affairs should be submitted directly to Office of Public Relations. Information from areas under Vice President for Academic Affairs should be submitted to Dean Claud B. Green.

CALENDAR OF CAMPUS EVENTS

- March 2 Mon. 9:00 a.m. Educational Council Meeting
- March 2 Mon. Agronomy Seminar - Dr. W. R. Langford, Coordinator of Regional Project S-9 at Experiment, Georgia will speak on Plant Introduction and Development of New Crops. Room A-203 P&AS
- March 2 Mon. Dr. Philip R. Larson, Pioneering Research Unit, U.S. Forest Service, Rhinelander, Wis., will deliver two special lectures in the Auditorium of the Plant and Animal Science Bldg. - admission is free. His topics:
 4:00 p.m. "Wood Formation from a New Perspective"
 8:00 p.m. "Science and the Art of Forestry"
 These lectures are presented by the Department of Forestry, The Society of the Sigma Xi, and The Belle W. Baruch Research Institute in Forestry, Wildlife Science; and Marine Biology of Clemson University.
- March 5 Thur. 8:00 p.m. Graduate Wives Club - Speaker will be Dr. Harold Cooledge, Alumni Professor of Architecture, YMCA
- March 6 Fri. 12:00 N. Symposium on Improvement of Instruction, College of Agriculture and Biological Sciences. Mr. Stanley Finch, Texize Chemicals, Inc., Greenville, S.C., will speak on "The Public Image of Agriculture" - Plant and Animal Science Auditorium.
- March 6 Fri. 7:00 p.m. Sigma Xi Initiation Banquet - Speaker will be the Honorable John C. West, Lt. Gov. of South Carolina, Clemson House
- March 7 Sat. Baseball - Louisville at Clemson (2 games)
- March 9 Mon. 8:00 p.m. Clemson University Concert Series - Trumpets of the Lord - Littlejohn Coliseum
- March 9 Mon. Agronomy Seminar - Mr. B. C. Morton of Clemson Agronomy Agronomy Department will present The Relationship of SiO_2 Content of Forages to other Chemical Constituents and to Animal Performance. Room A-203 P&AS
- March 10 Tues. 4:00 p.m. Symposium on Improvement of Instruction, College of Agriculture and Biological Sciences. Dr. N.D. Peacock, Dean of Resident Instruction Emeritus, College of Agriculture, University of Tennessee, will speak on "Good Teaching -- What is It?" - Plant and Animal Science Aud.
- March 10 Tues. 4:00 p.m. Biochemistry Seminar-Dr. Robert Harris, Enzyme Institute, University of Wisconsin, will speak on "Energy Conservation by the Mitochondrion" - Room A-101 P&AS

CALENDAR OF CAMPUS EVENTS Continued

- March 11- Wed.- 8:00 p.m. Clemson Little Theatre, Food Industries Auditorium
March 14 Sat.
- March 11 Wed. 8:00 p.m. The Clemson University Concert Band, John H. Butler, conductor, Winter Concert. Littlejohn Coliseum - Free Admission
- March 11 Wed. 8:30 a.m.- Symposium on Improvement of Instruction, College of
11:30 a.m. Agriculture and Biological Sciences. Coffee sessions: faculty and staff -- Dr. N.D. Peacock - Agricultural Engineering Auditorium.
- March 11 Wed. 4:00 p.m. Symposium on Improvement of Instruction, College of Agriculture and Biological Sciences. Dr. N.D. Peacock will speak on "Motivation -- Teacher-Student Interaction" -- P&AS Auditorium
- March 12 Thur. 8:30 a.m.- Symposium on Improvement of Instruction, College of
11:30 a.m. Agriculture and Biological Sciences. Coffee sessions for faculty and staff -- Dr. N.D. Peacock - P&AS Aud.
- March 12 Thur. 12:00 N. Symposium on Improvement of Instruction, College of Agriculture and Biological Sciences. Dr. N.D. Peacock will speak on "A Quest for Excellence" - P&AS Aud.
- March 12 Thur. Baseball - Florida at Gainesville, Fla.
- March 12 Thur. 4:00 p.m. Environmental Systems Engineering Seminar in 300 Lowr Hall. Dr. Raymond Loehr, Water Resources Engineering Cornell Univ., will speak on "Trends in Agricultural Waste Management."
- March 13 Fri. Baseball - Florida at Gainesville, Fla.
- March 14 Sat. Spring holidays begin at noon
- March 14 Sat. Baseball - Florida at Gainesville, Fla. (2 games)
- March 15- Sun. The Bocour Artist Colors Collection, Lee Hall Gallery
April 5 Sun.

MAR 13 1970

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 14

March 15, 1970

MATHEMATICAL ASSOCIATION OF AMERICA TO MEET AT CLEMSON

The Southeastern Section of The Mathematical Association of America will hold its annual meeting in Clemson on March 20 and 21 with the Department of Mathematics acting as host. It is anticipated that approximately 400 mathematicians and college teachers of mathematics from the entire region will attend. (Continued on page 2)



PRESIDENT EDWARDS HONORED - President Robert C. Edwards (right) was recipient of an award of merit from the South Carolina chapter, American Institute of Architects, during the chapter's annual winter convention at Clemson House. The award cites Dr. Edwards for his contributions to the profession of architecture through support of excellence in architectural design, planning, and education. John L. Allen, editor of the university's news bureau, received a press award for achievement in reporting. Allen was cited for excellence in his news releases concerning activities of the College of Architecture.

MATHEMATICAL ASSOCIATION OF AMERICA TO MEET AT CLEMSON Continued

In addition to several sessions of fifteen minute contributed papers, there will be two one-hour addresses by men distinguished for research in their field. These invited speakers are:

Friday p.m. - Daniel Auditorium
Professor Hans Sagan - North Carolina State
University at Raleigh

Saturday a.m. - Daniel Auditorium
Professor Andrew Sobczyk - Clemson University

In addition, Professor John Kenelly, Chairman of the Clemson Department of Mathematics will deliver a thirty minute talk on "Ph.D. Availabilities and the Four-Year Colleges."

All meetings are open to faculty and staff members from other departments.

CLEMSON UNIVERSITY COUNCIL ON HYDROLOGY (CUCH)

On March 25 and 26 a conference on "Hydrologic Models in Water Resources Planning" will be held at the Clemson House, with a post conference tour of the Keowee-Toxaway Visitor's Center.

Keynote Speaker will be Professor Ray K. Linsley of Stanford University talking on "Will Computers Solve Our Problems?". At the March 25 banquet session, Dr. Hugh H. Macaulay, Alumni Professor of Economics at Clemson will present a talk on the topic "The Value of Things Without Value."

Topics of other papers to be presented are:

Proposed EROS Experiments in Hydrology
Simulation of Hydrologic Data
Evapotranspiration Models, by Dr. Jerry Lambert, Agricultural Engineering
An Infiltration Model Adapted to Agricultural Watersheds
The Variable Source Area Concept and Its Relation to Hydrologic Modeling
Hydroeconomic Models for Flood Measure Planning
Physical Modeling of a Tidal Estuary

For further information, contact Professor Robert A. Banister, Office of Industrial and Municipal Relations, Room 112, Riggs Hall.

AGRONOMY AND SOILS

The Departments of Agronomy and Soils and Pathology and Physiology are jointly sponsoring a Trifolium work planning conference on Mar. 17 and 18 in the Plant and Animal Science Building. Research involving taxonomy, cytology, pathology, world distribution, and improvement of clovers will be reviewed and plans will be made for future research.

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) presented a seminar entitled "Distributed Parameter Systems Analysis" at Louisiana Polytechnic Institute on Jan. 29. Dr. Bruley also presented a seminar entitled "Oxygen Transport In the Microcirculation" at the University of Virginia on Feb. 12.

F. C. Alley (Prof) and J. W. Hall (Assoc Prof) arranged to take the senior class in chemical engineering to attend the 67th National Meeting of the American Institute of Chemical Engineers which was held in Atlanta on Feb. 15-18. Also attending were C. E. Littlejohn (Prof & Hd), S. S. Melsheimer (Asst Prof), W. B. Barlage (Assoc Prof), J. C. Mullins (Assoc Prof), and W. F. Beckwith (Assoc Prof). C. E. Littlejohn and J. C. Mullins were co-chairmen of a Selected Topics Session at the same meeting.

A. H. Peter Skelland of the University of Kentucky presented "Heat Transfer in Non-Newtonian Fluids" on Feb. 11, as the second of the Spring Chemical Engineering Colloquium Series.

D. F. Bruley (Assoc Prof) was a co-author with M. H. Knisely (Prof, Medical College of South Carolina) and D. D. Reneau (Assoc Prof, Louisiana Polytechnic Institute) of "The Development and Use of Equations for Predicting the Limits on the Rates of Oxygen Supply to the Cells of Living Tissues and Organs," a 56-page special supplement to the Journal of Angiology, 20, No. 11, December 1969.

W. B. Barlage (Assoc Prof) presented a seminar entitled "The Effect of Surface-Active Agents on Gas Adsorption," at the University of South Carolina, Feb. 23.

D. F. Bruley (Assoc Prof) was a co-author with R. W. Glass (Grad Asst) and T. A. McCracken (Grad Asst) of "Teaching and Learning Aspects of a Process Control Computer" in the transactions A/HCEUG Vol. 1, No. 5, November 1969.

F. C. Alley (Prof) spoke to Junior and Senior classes at J. L. Mann High School on the topic of Air Pollution Prevention.

R. C. Harshman (Prof) spoke to Junior and Senior classes at J. L. Mann High School on the topic of Rocket Engines.

D. F. Bruley (Assoc Prof) was a co-author with D. H. Hunt (Grad Asst) of "Experiences with the Computer and the Monte Carlo Method," in the transactions A/HCEUG Vol. 1, No. 5, November, 1969.

COLLEGE OF ENGINEERING

James L. Edwards (Prof) has been appointed state coordinator for the 14 South Carolina chapters of the Junior Engineering Technical Society (JETS), a national organization for high school (or junior college) students interested in engineering and science. Prof. Edwards will serve as liaison between JETS chapters in South Carolina and national headquarters in New York City.

The College of Engineering held a one-day conference entitled "Engineering for Mankind" on Thursday, Feb. 26. Approximately 330 juniors and seniors and 40 teachers and counselors throughout the state attended.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

W. D. Trevillian (Dean) was the luncheon speaker at the Charlotte Textile Club on Mar. 9

On Jan. 21, William C. Laffoday (Coordinator, Professional Development) addressed the Easley, S. C. Jaycees organization on their Annual Distinguished Awards Night program. The presentation was entitled, "Everybody Talks: Not Many Communicate."

Carl L. Dyer (Asst Prof), Gayle D. Riggs (Asst Prof), and B. J. Todd (Prof) participated in the Winter Symposium on Man-Machine Interaction sponsored jointly by the Southeastern Chapter of the Institute of Management Science and the Department of Management of the University of Florida at Gainesville, Fla., Feb. 19-21.

B. J. Todd (Prof) spoke at the American Textile Manufacturing Institute's Seminar on Research and Technology on "Statistical Analysis in Management," Feb. 24, at the Clemson House.

ECONOMICS

The Department of Economics has been awarded a grant of \$20,000 by the S. C. Council on Economic Education to operate a summer institute in economics for high school teachers of the state. The institute will operate concurrently with the second term of summer school in 1970.

ELEMENTARY AND SECONDARY EDUCATION

Myrton A. Packer (Assoc Prof) read a paper entitled "What Philosophy Could Contribute to Education" at the 22nd annual meeting of The Philosophy of Education Society, (Southeastern Division) at New Orleans, Feb. 13. Also Dr. Packer has published "Developing An Understanding of Human Behavior" in The Journal of Industrial Arts Education, January-February, 1970.

ENGLISH

Rodney O. Rogers (Assoc Prof) has an article, "Stephen Crane and Impressionism," published in the December issue of Nineteenth Century Fiction.

Harriet Holman (Assoc Prof) has written the introduction to an edition of Thomas Nelson Page's On the Nile, 1901, published by Henry Field, grandson of Page.

Arthur J. Fear (Assoc Prof) and Jerry Blanche (Instr) have been selected to represent South Carolina on the Council of the Southern Speech Association. Dr. Fear is President of the South Carolina Speech Association, and Mr. Blanche is Secretary-Treasurer.

ENVIRONMENTAL SYSTEMS ENGINEERING

John F. Andrews (Prof & Hd - on leave) presented a paper "Dynamic Modeling and Simulation of the Anaerobic Digestion Process" at the National American Chemical Society Meeting, Houston, Tex., Feb. 26.

FOOD SCIENCE AND BIOCHEMISTRY

Frank M. Dework, Jr. (Grad Stu, Microbiology) attended the Dixie Section IFT meeting in Athens, Ga., where he presented a paper entitled, "Behavior of Clostridium perfringens in Vacuum-Sealed Meats," on Feb. 20.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd) presented two lectures on "The Use of Artificial Materials in Biological Systems" at the University of Illinois, Feb. 23 and 24.

S. F. Hulbert (Hd), F. A. Young (Asst Prof), R. S. Mathews (Assoc Prof), J. J. Klawitter (Asst Prof), C. D. Talbert (Grad Res Asst) and F. H. Stelling (Adjunct Prof) presented a paper entitled "Potential of Ceramic Materials as Permanently Implantable Skeletal Prostheses" at the National Meeting of the American Institute of Chemical Engineers, Atlanta, Ga., Feb. 15-18.

B. W. Sauer (Asst Prof) has published a paper entitled "Valve Drainage of the Pleural Cavity of the Dog" appearing in the Journal of the American Veterinary Medical Association, Vol. 155, No. 12, December 15, 1969, pages 1997-2001. The paper was presented at the 1969 convention of the AVMA in Minneapolis.

M. J. Eitel (Assoc Prof) had a paper published in a January issue of Journal of Physical Chemistry. The publication is concerned with the diffusion of solute molecules in solution.

LANGUAGES

Rob Roy McGregor (Asst Prof) has an article entitled "Is Baudelaire's Bénédiction Christian and Biblical?" appearing in the fall issue of Romance Notes (XI, 1).

MATHEMATICS

Joel V. Brawley, Jr. (Assoc Prof), representing the Mathematical Association of America and Clemson University, gave three lectures on the campus of College of Saint Benedict in St. Joseph, Minn. on Feb. 17 and 18.

MILITARY SCIENCE

Charles F. Tisdale (Asst Prof) is to retire from the United States Army on Mar. 31 after nearly thirty years service. A Clemson alumnus, he received B.S. degrees in Agricultural Economics and Sociology in 1941 and in Agricultural Education in 1947. He was a member of the Clemson football team which won the Cotton Bowl game in 1940.

LTC Tisdale served in the European theater during World War II, and since that time has completed tours of duty in Italy, Saudi Arabia, Alaska, and Vietnam in addition to the continental United States. Among his many awards and decorations are two Silver Stars awarded for gallantry in action, two Purple Hearts for wounds sustained, and the Army Commendation Medal for outstanding performance of duty.

LTC Tisdale, his wife Marjorie, and son Eric will continue to reside in Clemson.

PLANT PATHOLOGY AND PHYSIOLOGY

N. C. Camper (Asst Prof) presented on Feb. 16 to students and staff of Central Wesleyan College two papers entitled "Effects of Herbicides on Soil Microbial Ecology" and "Pesticides in our Environment."

RECREATION AND PARK ADMINISTRATION

G. E. Howard (Asst Prof) was elected chairman-elect of the School and Community Section Recreation Division of the Southern District of the American Association for Health, Physical Education and Recreation.

Jack Stevenson (Assoc Prof) served as a member of the Council of Delegates at the American Camping Association National Convention in St. Louis, Feb. 25-28. At this meeting he also took office as Vice-President of the Southeastern Section (comprising South Carolina, North Carolina, and Georgia) of A.C.A.

RESEARCH COORDINATING UNIT

Robert H. White (Assoc Prof) has been granted a leave of absence from Clemson University to serve as the Executive Director of the South Carolina Advisory Council on Vocational Education. The Council turned to the Research Coordinating Unit of Clemson for an Executive Director with experience in educational research and also with broad experience in vocational education. As Director, White will be responsible for guiding the efforts of this independent State Council which consists of twelve prominent citizens from throughout the state. This Council will be responsible for making recommendations and offering advice on vocational education to the State Board of Education, and is also charged with performing an evaluation of vocational education annually. Dr. White will maintain an office at Clemson for the Council while serving in this capacity.

RESEARCH COORDINATING UNIT Continued

John H. Rodgers (Dir) received one of the Centennial Awards presented by the Department of Agricultural Education at the celebration of The Ohio State University held Feb. 13. The awards were made in recognition of significant and outstanding achievement in Agricultural Education and in related fields, and in appreciation for distinguished and continuing efforts for the support of the profession.

SOCIAL SCIENCES

E. M. Lander, Jr. (Alumni Prof) addressed the Newberry Literary Study Club, Jan. 28, on "Revising South Carolina History." He addressed the Greenville County Textile Club, Feb. 19, on "The Early Textile Industry in the Piedmont." His review of George C. Rogers, Jr., Charleston in the Age of the Pinckneys appeared in the January issue of the Florida Historical Quarterly.

TEXTILE SCIENCE

Frederick T. Simon (Sirrine Prof) and Rudolf E. Schatzman (Beckman Instruments) presented a paper at the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy on Mar. 2, on "Double Beam Grating Spectrophotometer, Designed for Color Measurement and Formulation Control."

E. S. Olson (Assoc Prof) presented an invited paper entitled "Plastic Thin Film Flammability" to ASTM Plastics Flammability Committee in Cincinnati, Ohio, on Thursday, Mar. 5.

Frederick T. Simon (Sirrine Prof) will present an invited paper entitled "Computer Color Matching" at Southern Society for Paint Technology Convention in Miami Beach, Fla., on Mar. 19.

J. C. Hubbard, Jr. (Assoc Prof) has been invited to present a paper at the 12th Canadian Textile Seminar (International) at the Textile Federation of Canada, Queens University, Kingston, Ont., on Aug. 24. The paper will cover technological advances in the area of conventional and shuttleless weaving machines.

Robert H. Barker (Assoc Prof) attended Piedmont Section AATCC, Charlotte, on Jan. 30 and 31, and ACS meeting, Houston, Tex., on Feb. 23-27.

Donald W. Lyons (Assoc Prof) and Charles T. Vollers (Doctoral Fellow in M.E.) presented a paper entitled "A Review of Drying Processes for Textile and Other Fibrous Materials" at the National American Institute of Chemical Engineers Conference in Atlanta, Ga., on Feb. 18.

Robert H. Barker (Assoc Prof) presented seminars on "The Effect of Model Flame Retardants in the Thermal Degradation of Cellulose" at Cornell University on Feb. 5, Eastern Research Division of ITT Rayonier, Whippany, N. J., on Feb. 6, and Research Laboratories, Tennessee Eastman Company, Kingsport, Tenn., on Mar. 12.

CALENDAR OF CAMPUS EVENTS

March 15- Sun.- April 5 Sun.		The Bocour Artist Colors Collection, Lee Hall Gallery
March 16 Mon.		Baseball - Jacksonville at Jacksonville, Fla.
March 16- Mon.- March 20 Fri.		Clemson will hold an In-Service Training Program in Animal Science
March 17 Tues.		Baseball - Jacksonville at Jacksonville, Fla. (2 games)
March 17 Tues.	4:00 p.m.	Biochemistry Seminar - Dr. Herman Gorz of the Agricultural Research Service, USDA, will speak on "Application of Biochemistry to Plant Breeding and Genetics." Room A-101, P&AS Building.
March 18 Wed.- March 21 Sat.		Baseball - Georgia Southern Tournament at Statesboro, Ga. (2 games daily)
March 19 Thur.	2:00 p.m.	Industrial Management & Textile Science Seminar in Sirrine Hall Aud. -- Speaker: Mr. Grady L. Patterson, Jr. State Treasurer of S.C.
March 23 Mon.		Classes resume
March 23 Mon.		Baseball - George Washington at Clemson
March 23 Mon.		Agronomy Seminar - Dr. Morris Bitzer, Agronomy Dept., University of Georgia will present Latest Developments in Hybrid Wheat. Room A-203 P&AS Building
March 23 Mon.	4:00 p.m.	Department of Plant Pathology and Physiology Seminar- Dr. A.G. Plakidas, retired Plant Pathologist from Louisiana State University, will speak of "Virus Variegation in Camellias."
March 24 Tues.- April 28 Tues.		Continuing Education Classes
March 24 Tues.	8:00 p.m.	Easter Concert by the CLEMSON CHORALE SOCIETY, featuring Stainer's "The Crucifixion." Daniel Theatre-Free Admissio
March 25- Wed. March 26 Thur.		Baseball - Ohio University at Clemson
March 26 Thur.	3:00 p.m.	Industrial Management Graduate Seminar Series 1969-70 Edward E. Lawler, Professor of Administrative Sciences, Yale University - "To be announced" - Sirrine Hall Aud.
March 26 Thur.	7:30 p.m.	English Department presents series on "Journalism Ethics Speakers: Dave Partridge, Norvin Duncan and Doug Smith, all of Television Station WFBC-TV in Greenville. Room 415, Daniel Hall

ALNDAR OF CAMPUS EVENTS Continued

- arch 26 Thur. 4:00 p.m. Joint Biochemistry - Nutrition, Physiology Seminar - Dr. Gilbert Leveille, Professor of Nutritional Biochemistry, University of Illinois, will speak on "Metabolic Consequences of Intermittent Feeding in Rats." Room A-101, P&AS Building.
- arch 27 Fri. Baseball - Vermont at Clemson
- arch 28 Sat. Architectural School Aptitude Test, Room 20, Tillman Hall
- arch 28 Sat. Baseball - Rider College at Clemson (2 games)
- arch 30 Mon. Agronomy Seminar - Mr. G.N. Hohla, Clemson University Agronomy and Soils Department will present Some Factors Influencing the Effectiveness of Soil Applied Chelated Micronutrients. Room A-203 P&AS Building
- arch 30 Mon. 8:00 p.m. The College of Liberal Arts presents DESPY KARLAS (piano) and EUGENE EICHER (cello) in Joint Recital. Daniel Theater, Free Admission.
- arch 31 Tues. 8:00 p.m. Public lecture by Ian McHarg, environmentalist architect and author, in Chemistry Auditorium. Sponsored by the College of Education, the College of Architecture, University Fine Arts Council and the Clemson Architectural Foundation.
- April 1 Wed. Baseball - Georgia at Clemson
- April 1- Wed.- 4:00 p.m. Chemistry Lecture Series - Speaker: E. Wenkert of
 April 2 Thur. Indiana University, Organic Chemistry (Dupont Lecturer). Room 131, Brackett Hall.
- April 1 Wed. 8:00 p.m. Dr. John D. Martz, Professor of Political Science, University of North Carolina at Chapel Hill, will give a public lecture on the topic: "Nationalistic Militarism in Peru and Bolivia: A New Threat to American Security?" Daniel Hall Aud. A reception will be held for Dr. Martz after the lecture.
- April 2 Thur. 8:00 p.m. Graduate Wives Club- Speaker: Dr. Herbert Brantley, Head of Recreation and Parks Administration "Vacationing in this area on a 'Graduate Budget,'" in YMCA
- April 2 Thur. 7:30 p.m. English Dept. presents series on "Journalism Ethics." Room 415, Daniel Hall
- April 2 Thur. 10:00 a.m. Forest Lecture Series-J.S. McKnight, U.S. Forest Service, to speak on "Commercial Planting of Cottonwood in Southern U.S." P&AS Building Auditorium

CALENDAR OF CAMPUS EVENTS Continued

- April 2 Thur. 1:30 p.m. Forest Lecture Series - J. S. McKnight, U. S. Forest Service, to speak on "Management of Southern Hardwoods -- Other Than Cottonwood -- Including Prospects of Commercial Planting and Seeding." P&AS Auditorium
- April 2 Thur. 4:00 p.m. Environmental Health Seminar and Nutrition Physiology Seminar, College of Agriculture and Biological Sciences: Dr. D. E. Reichle of the Oak Ridge National Laboratory will discuss "Tropic Dynamics of Arthropods in Natural Ecosystems," in Room A-101, P&AS Building.
- April 2 Thur. 4:00 p.m. Dr. E. N. Lightfoot of the University of Wisconsin will present the fourth and final lecture in the Chemical Engineering Spring Colloquia series in Room 100 Earle Hall. He will speak on "Mass Transfer Across Mobile Interfaces: General Theory and Application to the Oxygenation of Blood."

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 15

April 1, 1970

CHANGES AFFECTING SOUTH CAROLINA RETIREMENT SYSTEM

Complete details will be distributed when they are available. The following major changes will be of interest to a large number of members, now:

(a) the requirement of ten years of membership to become eligible for disability retirement will be reduced, effective July 1, to five years;

(b) the "final average salary" which is used as a base for one's retirement allowance, now consisting of "the five consecutive fiscal years of highest earnings in the last ten before retirement" will be changed, effective July 1, to "the three consecutive fiscal years of highest earnings" at any time in a member's covered employment;

(c) the privilege of establishing credit for former State service, not presently credited, has been re-opened, upon full payment by an active member of the appropriate employee contribution, plus interest, prior to death or retirement. We do not yet have adequate information on the procedure which will be followed, but any Clemson University employee who has been advised that prior service could not be credited should visit the Personnel Office in May, or June, and have his request renewed.

HONORS PROGRAM

On January 21, 1970, the Honors Council approved a senior division honors program for the Department of Elementary and Secondary Education. To qualify for Departmental Honors in this curriculum, a student must successfully complete at least six hours of honors courses in his area of concentration and the remainder in education honors courses. For example, a student who successfully completes six hours in education honors courses and six hours in English honors courses, and has the required grade point ratio, will be graduated with "Departmental Honors in Education-English."

The Honors Council also approved the awarding of "Senior Division Honors" to, and the placing of this notation on the diplomas of, certain students to whom the present Departmental Honors program is not now available. A student majoring in a department not offering a Departmental Honors program might receive "Senior Division Honors" upon successful completion of 12 hours of honors courses drawn from no more than two departments. In addition, an education major whose area of concentration does not offer a Departmental Honors program might qualify for Senior Division Honors under the above provisions if he successfully completed at least six hours of honors courses in any one department and the remainder in education honors courses. A student whose major department does offer a Departmental Honors program may not elect to receive Senior Division Honors.

MINUTES OF THE FEBRUARY RESEARCH FACULTY COUNCIL MEETING

The Research Council, Chairman Dr. Kingsland, convened its February meeting at 4:00 p.m., February 16, 1970.

Dr. Davis McGregor opened the meeting with a discussion of the proposed change on the retirement policy. After a careful review of the statement, Dr. McGregor made a motion, seconded by Dr. John Hubbard, that the statement as given below be approved and forwarded to the Administration. The motion passed unanimously.

1. Should a member cease to be an employee except by death or retirement, he shall be paid within six months after his demand therefor, but not less than ninety days after ceasing to be an employee, his total contributions with interest at five per cent. The interest paid should be reviewed periodically and adjusted if prevailing interest rates change.

2. The person nominated by a member to receive the full amount of his accumulated contributions, with interest, in the event of his death before retirement may, if such member dies in service after the attainment of age sixty or after the accumulation of twenty or more years of creditable service, elect to receive in lieu of such accumulated contributions, with interest, an allowance for life in the same amount as if the deceased member had retired at the time of his death and had named such person as beneficiary under option 2.

3. Retirement benefits shall be based on the average final compensation in the three consecutive fiscal years, within the last ten fiscal years of creditable service, giving the highest average.

The topic of the proposed merger of the two faculty bodies was introduced for discussion by Dr. William Barlage. A motion was offered by Dr. A. S. Tombes, seconded by Dr. Barlage, that the idea of the merger of the two faculty groups, as stated in a memo on that subject dated 13 February 1970, be approved in principle, subject to further study by a committee. This committee, when appointed, will work with a similar committee from the Faculty Senate in the formulation of a final draft. The motion passed: 9 for, 0 against, 2 abstaining.

A report was made by the ad hoc committee on Revision of Faculty Manual, Chairman Dr. J. Janzen. After minor discussion, Dr. Henry Bungay made a motion, seconded by Dr. John Lundberg, to accept all proposed changes as offered by the committee. The motion passed unanimously.

A report on the state of surplus property at the University and in the State of South Carolina was made by Dr. Bungay. He offered a motion that a committee be appointed to review and abstract all surplus equipment lists as made available in the Campus Surplus Office and that the faculty be made better informed as to the procedures by which surplus equipment can be obtained. The motion passed unanimously.

Limited discussion was held on the possibility of modifying current travel expense regulations. No action was taken.

Meeting adjourned 5:25.

MINUTES OF THE JANUARY RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its January meeting at 4:00 p.m., January 20, 1970, in Room 28, Tillman Hall.

Chairman Kingsland announced that the Council's Executive Committee had appointed Dr. H. R. Bungay as the Council's representative on the Steering Committee for the University's Institutional Self-Study Program.

Following discussion of proposals relating to the state retirement system, the Council requested that the Policy Committee (McGregor) study the matter and submit recommendations at the February meeting.

The ad hoc Committee on Revision of Faculty Manual (Janzen) conducted discussions of several proposals; some items were referred to the Policy Committee for recommendations, and the remainder were returned to the ad hoc Committee for alterations.

SOUTH CAROLINA STATE EMPLOYEES' ASSOCIATION

The South Carolina State Employees' Association is conducting a membership campaign during the period March 15 through May 15, 1970. If you want to learn more of the benefits to be gained through membership in the Association, please contact either John B. Gentry or William J. Stamey in the Personnel Office; or one of your local SCSEA directors, L. M. Bauknight, 103 Long Hall; Jack S. Goodman, 99 P & AS Building; or James L. Edwards, 109 Riggs Hall.

SHILLITO-HAMMETT SCHOLARSHIP

A scholarship, available to a son or daughter of a member of the South Carolina State Employees' Association, has recently been announced.

Prime considerations for the award of the scholarship will be the academic record and the financial need of the applicant. Entering freshmen are not eligible for this scholarship.

Additional information and application forms may be obtained at Financial Aid Office, 24 Tillman. Deadline for filing applications is April 30th.

ADMINISTRATION

President Robert C. Edwards participated in the official opening in Washington, D.C., March 19 of "A Garden for the Blind," a unique display which allows the blind to enjoy plants through the senses of smell and touch. The Clemson horticulture department designed the garden which was exhibited in the courtyard of the U.S. Department of Agriculture as the central feature during USDA National Lawn and Garden Week (March 19-27).

President R.C. Edwards addressed the 37th annual conference of the Southeastern Electric Exchange at Boca Raton, Fla., on March 24. His topic was "The Road Ahead in Education."

ADMINISTRATION Continued

H. F. Landrith (Dean, Educ) was appointed by Governor McNair as a member of the Oconee County Commission for Higher Education. Dr. Landrith was re-elected President of the Department of Higher Education at the Spring meeting.

L. G. Rich (Dean, Engr) attended a committee meeting (future recognition of professional engineers) of the National Council of Engineering Examiners in St. Louis, Mo., on Mar. 9 and 10.

BIOLOGY DIVISION

J. K. Ferguson, Chief of Bacteriology and Mycology in the Biomedical Activities Division of the Lunar Receiving Laboratory, Manned Spacecraft Center, NASA, Houston, visited Clemson on Feb. 2 and 3, and presented a seminar sponsored by the Biology Division on "Biomedical Activities of the Lunar Receiving Laboratory."

W. J. Payne (Dept Hd) and W. J. Wiebe, both of the Microbiology Department, University of Georgia, visited the Clemson campus on Jan. 26, and Feb. 16 and 17, respectively. Both visitors presented seminars sponsored by the Microbiology Section: Attachment of Marine Bacteria to Organic Aggregates, by Dr. Wiebe; Energy Yields and Growth of Heterotrophic Microorganisms, by Dr. Payne.

A NASA contract for \$30,000.00 has been awarded to Clemson University to support the research of R. K. Guthrie (Dir) on "Ecological Relationships of Microorganisms in a Simulated Spacecraft Environment." R. N. Ferebee (Asst Microbiologist) has been appointed as Research Assistant on this research.

R. K. Guthrie (Dir) addressed the 52nd Annual Water Utilities Short School on "Possible Uses of Membrane Filter Fluorescent Antibody Method" at Texas A & M University, College Station, Tex., on Mar. 3 and 4.

R. K. Guthrie (Dir) with Gerald R. Taylor (NASA Manned Spacecraft Center, Houston) and Elwood B. Shirling (Ohio Wesleyan University) has published a paper entitled "Serological characteristics of Streptomyces species using cell wall immunizing antigens" which appears in the Canadian Journal of Microbiology, Vol. 16, No. 2, pages 107-115.

CIVIL ENGINEERING

Donald B. Stafford (Asst Prof) and Joseph P. Rostron (Assoc Prof) attended the annual meeting of the American Society of Photogrammetry in Washington, D. C., Mar. 2-4. A paper was presented by Dr. Stafford entitled "An Aerial Photographic Survey of Coastal Erosion."

CHEMISTRY

H. Garth Spencer (Prof & Hd) has been elected a Fellow of The American Institute of Chemists. The AIC has more than 7,000 members in 26 chapters throughout the United States. It is the only chemically-oriented American organization whose principal purpose is to develop the professional and economic status of chemists and chemical engineers.

ELECTRICAL ENGINEERING

J. W. Lathrop (Prof) and B. E. Gilliland (Assoc Prof) attended a meeting of NSF Program Directors in Washington, D. C., Feb. 11-13, relative to NSF Undergraduate Instructional Scientific Equipment Grants.

ELEMENTARY AND SECONDARY EDUCATION

Jack Harris (Asst Prof) presented a speech, "The Elementary Counselor and Special Education: A Way to Improve Our Schools," to the Winthrop Chapter, Council for Exceptional Children, on Feb. 19. Dr. Harris also has been invited by the State Department of Education to serve on a state-wide committee to study regulations regarding the evaluation of exceptional children.

ENGLISH

Richard J. Calhoun (Alumni Prof), on leave as a Fulbright Professor in Yugoslavia, lectured in Udine, Italy, on Mar. 6 as part of a symposium on contemporary American literature. The topic of his lecture was--Has America Produced a Major Postwar Poet? On Apr. 1-7, Professor Calhoun will be the Yugoslav representative in Berlin at a European Conference on the Fulbright-Hays Program.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. E. Skelton (Asst Prof) attended the Pest Management Conference, sponsored by North Carolina State University, in Raleigh, N. C., Mar. 24-27, and presented research data on apple insects for South Carolina during 1969.

Raymond Noblet (Asst Prof) attended meetings of the Georgia Entomological Society in Albany, Ga., Mar. 17-19, and presented a paper.

INDUSTRIAL EDUCATION

The Department of Industrial Education has received a grant of \$31,176 from the South Carolina Commission on Higher Education to conduct a teacher training institute in industrial arts from June 29 through August 7. The primary purpose of the institute is to help alleviate the industrial arts teacher shortage in the South Carolina public schools. Four institute centers, accepting a total of 100 participants, will be held in Greenville, Florence, Columbia and Charleston. Assistant Professors J. Page Crouch, William E. West, Harvey Morgan, and Paul C. Caley will be directing the centers this summer. The latter faculty member is directing the planning and organizing phases of the institute this Spring.

MILITARY SCIENCE

Joseph R. Jackson (Assoc Prof) has been accepted by the Medical University of South Carolina for the Fall semester 1970. He will be participating in an Army program whereby he will remain on active duty while attending advanced schooling subsidized by the Army. Capt. Jackson is one of only twenty applicants selected on an Army wide basis for this much sought after program.

PHYSICS

P. B. Burt (Assoc Prof) published a lab report entitled, "Magnetic Field of a Current Loop in a Toroidal Conductor;" Oak Ridge National Lab Report Number ORNL-TM-2892, March 1970.

The Society of Physics Students sponsored a field trip for persons interested in viewing the recent eclipse of the sun. The site selected for viewing this eclipse was the athletic field at Lake City Senior High School. Arrangements were made in advance for the group to use the facilities. Approximately 100 people were present during the eclipse. These consisted of faculty members, their families, graduate students and their families, and undergraduate students, all of whom were from the Department of Physics. Numerous telescopes were available for viewing the eclipse and a number of photographs were made which will shortly be displayed in Kinard Laboratory of Physics.

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Assoc Prof) at the invitation of the Physical Education Department of Hollins College in Virginia, delivered a guest lecture on Mar. 17, from the point of view of a professional Camp Director, entitled "Desirable Characteristics in a Camp Staff Member."

ZOOLOGY

Roy T. Sawyer (Asst Prof) has written "Observations on the natural history and behavior of the freshwater leech Erpobdella punctata" published in American midland Naturalist 83(1):65-80.

The Zoology Section of the Division of Biology will be visited on Apr. 8 and 9 by Dr. Jerry Sutin, Emory University School of Medicine, and Dr. Norman Sulkin, Bowman Gray School of Medicine. They are visiting a number of campuses as Neuroanatomy Visiting Scientists, a program supported by the National Institutes of Health. They will be available for discussion with interested students and faculty on topics relating to studies and research in the basic medical sciences. Specific seminars are listed on the calendar of campus events.

DEVELOPMENT OFFICE

Harry Durham (Dir, Comm Center) was chairman of the American College Public Relations Association's Mason-Dixon Conference Mar. 16-18 in White Sulphur Springs, Va. Allen Sale (Publications Ed) and Ross Cornwell (Assoc Ed, News Bureau) also attended the conference. A highlight of the meeting was a news conference with the presidents of three North Carolina Universities and newsmen from the Associated Press, the National Observer and NBC News. The theme of the Association Conference was "Campus Change - Too Fast or Too Slow."

FOREIGN LANGUAGE FILM SERIES

Numerous award-winning films will be featured in the "Foreign Language Film Series." The films will be shown in Lowry Hall auditorium and admission is free. All movies have sound tracks in the language noted, with English subtitles.

April 6 9 p.m. (Triple Feature) Le Poulet (French) 1963.
Monday Academy Award, 1966; First Prize Venice Short Festival, 1963; New York Film Festival, 1964; Bordigheri Film Festival, 1964; International West German Shorts Festival, 1964. Written and directed by Claude Berri.

Heureux Anniversaire (French) 1961.
Academy Award, Best live-action short subject, 1962; First Prize, West German International Short Film Festival, 1961. Written and directed by Pierre Btaix and Jean-Claude Carriere.

San Simeon Del Desierto (Spanish) 1965.
Directed by Luis Bunuel, originally intended to be the first section of a two-part feature with the second half planned for Vittorio de Sica, Stanley Kubrick, Federico Fellini. With Silvia Pinal, Claudio Brook, Hortensia Santovana, Jesus Fernandez Martinez.

April 13 8 p.m. Nazarin (Spanish) 1958.
Monday Grand Prize, Cannes Film Festival, 1958. Directed by Luis Bunuel. With Francisco Rababi, Rita Macedo, Marga Lopez, Ignacio Lopez Tarso.

April 15 Durchlaucht Amusiert Sich (The Gallant Prince).
(Tentative)

April 20 9 p.m. Le Mariage De Figaro (French) 1963.
Monday The Comedie Francaise production of the Beaumarchais play. Directed by Jean Meyer.

April 23 8 p.m. Ballad of a Soldier (Russian) 1960.
Monday Awards at Cannes and San Francisco Film Festivals. Directed by Grigori Chukhrai. With Vladimir Ivashor and Shanna Prokhorenko.

CALENDAR OF CAMPUS EVENTS

- April 1 Wed. Baseball - Georgia at Clemson
- April 1- Wed.- 4:00 p.m. Chemistry Lecture Series - Speaker: E. Wenkert of
April 2 Thur. Indiana University, Organic Chemistry (Dupont Lecturer).
Room 131, Brackett Hall.
- April 1 Wed. 8:00 p.m. Dr. John D. Martz, Professor of Political Science,
University of North Carolina at Chapel Hill, will give
a public lecture on the topic: "Nationalistic Militarism
in Peru and Bolivia: A New Threat to American Security?"
Daniel Hall Aud. A reception will be held for Dr. Martz
after the lecture.
- April 2 Thur. 8:00 p.m. Graduate Wives Club - Speaker: Dr. Herbert Brantley,
Head of Recreation and Parks Administration "Vacationing
in this area on a 'Graduate Budget,'" in YMCA.
- April 2 Thur. 7:30 p.m. English Dept. presents series on "Journalism Ethics."
Room 415, Daniel Hall.
- April 2 Thur. 10:00 a.m. Forest Lecture Series - J.S. McKnight, U.S. Forest Service
to speak on "Commercial Planting of Cottonwood in
Southern U.S." P&AS Building Auditorium
- April 2 Thur. 1:30 p.m. Forest Lecture Series - J.S. McKnight, U.S. Forest Service
to speak on "Management of Southern Hardwoods -- Other
Than Cottonwood -- Including Prospects of Commercial
Planting and Seeding." P&AS Auditorium
- April 2 Thur. 4:00 p.m. Environmental Health Seminar and Nutrition Physiology
Seminar, College of Agriculture and Biological Sciences:
Dr. D.E. Reichle of the Oak Ridge National Laboratory
will discuss "Tropic Dynamics of Arthropods in Natural
Ecosystems," in Room A-101, P&AS Building.
- April 2 Thur. 4:00 p.m. Dr. E. N. Lightfoot of the University of Wisconsin will
present the fourth and final lecture in the Chemical
Engineering Spring Colloquia series in Room 100 Earle
Hall. He will speak on "Mass Transfer Across Mobile
Interfaces: General Theory and Application to the
Oxygenation of Blood."
- April 2 Thur. 4:00 p.m. Physics Colloquium - Dr. Ysbrand Haven, Professor of
Physics at Wake Forest University, will speak on "Why Do
Solids Thermally Expand?" -- Room 101 Kinard Laboratory
of Physics.
- April 4 Sat. Baseball - Wake Forest at Clemson (2 games)
- April 4 Sat. Admission Test for Graduate Study in Business, Room 20,
Tillman Hall

CALENDAR OF CAMPUS EVENTS Continued

April 6	Mon.	9:00 a.m.	Educational Council Meeting
April 6	Mon.		Baseball - Duke at Clemson
April 6	Mon.	4:00 p.m.	Agronomy Seminar - Mr. Bob Gambrell, Agronomy Dept., will present <u>Fusarium</u> Canker on Yellow Poplar - Room A203, P&AS Building.
April 7	Tues.		Baseball - Georgia Tech at Clemson
April 8	Wed.		Honors and Awards Day - Classes suspended at noon.
April 8- May 9	Wed.- Sat.		Greenville County Museum of Art Collection, Lee Hall Gallery
April 8	Wed.		Baseball - Belmont Abbey at Belmont, N.C.
April 8	Wed.	7:00 p.m.	Gamma Sigma Delta initiation banquet at Schilletter Hall.
April 8	Wed.	4:00 p.m.	Neuroanatomy Visiting Scientists Seminar I - Dr. Jerome Sutin, Chairman, Department of Anatomy, Emory University School of Medicine will speak on "The Brain and Reproductive Behavior." Room 316, Long Hall.
April 8	Wed.	7:30 p.m.	Neuroanatomy Visiting Scientists Seminar II - Dr. Jerome Sutin and Dr. Norman Sulkin will conduct an informal seminar on "Graduate Education in the Basic Medical Sciences." Room 316, Long Hall.
April 9	Thur.	2:00 p.m.	Industrial Management & Textile Science Seminar in Sirrine Hall Auditorium. Speaker: Mr. James M. Henderson, Assistant to U.S. Postmaster General.
April 9	Thur.	7:30 p.m.	English Department presents series on "Journalism Ethics" - Room 415, Daniel Hall.
April 9	Thur.	10:00 a.m.	Neuroanatomy Visiting Scientists Seminar III - Dr. Norman Sulkin, Chairman of Anatomy at Bowman Gray School of Medicine will speak on "Neuronal Injury and Recovery." Room 316, Long Hall.
April 9	Thur.	4:00 p.m.	Physics Colloquium - Dr. Frank E. Kinard, Assistant Commissioner, South Carolina Commission on Higher Education, will speak on "Graduate Programs in South Carolina" -- Room 101, Kinard Laboratory of Physics.
April 10	Fri.		Baseball - N.C. State at Clemson
April 10- April 11	Fri.- Sat.		Southeastern Sectional Conference of Undergraduate Student Chemists, Clemson House.
April 10	Fri.	3:00 p.m.	Industrial Management Graduate Seminar Series 1969-70 -- J.S. Hunter, Professor of Statistics, Princeton University, "Statistical Analysis in Management" - Sirrine Hall Aud.

CALENDAR OF CAMPUS EVENTS Continued

April 11	Sat.		Baseball - North Carolina at Clemson (2 games)
April 11	Sat.	5:00 p.m.	Sigma Alpha Epsilon Initiation Ceremony, The Clemson Room, Clemson House.
April 11	Sat.	8:00 p.m.	Installation Banquet of S.C. Nu Chapter, SAE, The Clemson Room, Clemson House
April 12	Sun.	2:00 p.m.	Open House, SAE National Fraternity, Wannamaker Hall
April 13	Mon.	4:00 p.m.	Agronomy Seminar--Mr. Bob Gambrell, Agronomy Dept., will present Interaction between Soil Properties and Peach Waste Decomposition - Room A203, P&AS Building.
April 14	Tues.		Baseball - South Carolina at Columbia, S.C. (2 games)
April 14	Tues.	8:00 p.m.	The Clemson University Concert Band in Spring Concert, with the Clemson Chorale Society, the Clemson University Combined Glee Clubs and Mrs. Linda Barlage (pianist) -- Coliseum--Free Admission.
April 15- May 15	Wed. Fri.		1969 Homes For Better Living Awards, Lee Hall Gallery
April 16	Thur.		Baseball - Belmont Abbey at Clemson
April 18- April 19	Sat.- Sun.	3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre
April 18	Sat.		Baseball - Virginia at Charlottesville, Va. (2 games)
April 19	Sun.		Baseball - Maryland at College Park, Md.
April 20	Mon.	4:00 p.m.	Agronomy Seminar - Mr. John Van Duyn, Entomology, will present Genetic Resistance to Mexican Bean Beetle in Soybeans - Room A203, P&AS Building.



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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 16

April 15, 1970

ACTION TAKEN BY BOARD OF TRUSTEES

Actions of the Clemson University Board of Trustees at a recent meeting included:

Reelection of Senator Edgar A. Brown for a four-year term as president of the board.

Reorganizing the academic administration by creation of positions of dean of undergraduate studies (replacing assistant dean of the university), dean of graduate studies and research (replacing dean of the graduate school and director of university research), and dean of university extension, all reporting to the vice president for academic affairs and dean of the university.

Dr. Claud B. Green is to be appointed dean of undergraduate studies; Dr. A. E. Schwartz, dean of graduate studies and research; and Dr. Samuel M. Willis, now director of Clemson University at Sumter, dean of university extension.

Creation of two new administrative positions in the College of Engineering, an associate dean for engineering research and interdisciplinary programs and an associate dean for professional studies. (Continued on page 2)



UNIVERSITY APPOINTS NEW DEANS -- President Robert C. Edwards (center) and Dr. Victor Hurst (right), discuss the University's academic reorganization plans with the men appointed to three new deanships. They are (l-r) Dr. Arnold E. Schwartz, dean of graduate studies and research; Dr. Claud B. Green, dean of undergraduate studies; and Dr. Samuel M. Willis, dean of university extension.

ACTION TAKEN BY BOARD OF TRUSTEES Continued

Establishment of the College of Forest and Recreation Resources to comprise the Department of Forestry (now in the College of Agriculture and Biological Sciences) and the Department of Recreation and Park Administration (now in the College of Education).

Renaming the Department of Electrical Engineering to be the Department of Electrical and Computer Engineering.

Renaming the Department of Food Science and Biochemistry to be the Department of Food Science, and formation of a Biochemistry Section in the Division of Biology of the College of Agriculture and Biological Sciences.

(All academic changes are to become effective July 1, 1970.)

Adjustment of rental rates for faculty, staff and married student housing and for residence halls.

Adjustment of certain student fees including an increase of \$50 a semester in fees for out-of-state students as requested by the Ways and Means Committee of the House of Representatives.

Section of recipients of honorary degrees to be awarded on Commencement Day.

ALUMNI ASSOCIATION

Clemson alumni and friends will observe the 10th annual Clemson Week Around the World celebration, April 13-18.

The event has become a featured attraction of the Alumni Association's activity calendar and serves to acquaint former graduates with the current progress and developments at the University.

University officials will be featured speakers at banquet meetings throughout the week. Speakers at the various locations include:

- Joe Sherman, Director of Alumni Relations, at Albany, Tifton, and Columbus, Ga
- Susan Delony, Dean of Women, and Manning N. Lomax, Assistant Dean of Men, at Laurens.
- Cecil "Hootie" Ingram, Head Football Coach, at Clemson.

ENGINEERING SEMINAR

A seminar on "Application of Solid State Logic to Industrial Control" will be held at the Clemson House and Riggs Hall April 29-30. The seminar is sponsored by the Department of Electrical Engineering and by Digital Equipment Corp., Atlanta, Ga. Banquet speaker will be Prof. Carl McHugh, and his topic will be "Oh! Can You see?" Registration or additional information may be obtained from Prof. R.A. Banister, Office of Industrial and Municipal Relations, 112 Riggs Hall.

INTERDISCIPLINARY STUDIES IN ENGINEERING

Clemson University, the Medical University of South Carolina and the National Institute of Dental Research will sponsor a symposium on "Materials for Implant Dentistry" on April 16-17 at the Clemson House. The symposium will feature 17 research and review papers in the field of dental implants and a panel discussion on problems and potential solutions of implant dentistry.

Speakers and registrants will be attending from all parts of the nation. Dr. Sumner N. Levine will talk about "New Pathways in Bioengineering" at the banquet. Symposium director is Dr. F.A. Young.

SOUTH CAROLINA HEALTH AND SCIENCE FAIR

Clemson University is among the co-sponsors of the South Carolina Health and Science Fair that will be held at Textile Hall in Greenville April 23-25. Each of the University's colleges and schools will be featured in displays and exhibits. Chairman of the Clemson project is William C. Laffoday, Coordinator of the Professional Development Program in the College of Industrial Management and Textile Science.

The Fair also will feature displays and exhibits from the American Medical Association, the National Health Council, the National Aeronautics and Space Administration, various professional and scientific organizations, hospitals and other educational institutions.

MINUTES OF THE MARCH SPECIAL MEETING OF THE RESEARCH FACULTY COUNCIL

The Research Council convened a Special Meeting at 4:00 p.m., March 5, 1970, in Room 28, Tillman Hall.

The Council discussed procedures for appointment of department heads, and agreed to consider a formal proposal at the next meeting.

The following resolution (Kingsland) was approved: Whereas: The cost of food and lodging incurred by faculty members attending meetings on behalf of, or representing the University, frequently is in excess of the per diem allotment. The Council, therefore, recommends to the administration that reimbursement be made in full in those cases wherein costs can be shown to exceed the per diem allotment.

A brief discussion of the proposed new constitution for Senate-Council merger took place, and members were asked to study the constitution for a vote at the next meeting.

A resolution, by R. H. Barker, allowing private cars to be used to go to the Atlanta or Charlotte airports on official business, was passed. Members reported seeing Motor Pool vehicles parked at such airports for several days, thus being unavailable to others when shortages of University cars existed. A second motion (Barlage) recommended that the administration investigate the possibility of establishing clearing-house facilities to reduce duplication of travel by more than one individual, going to the same place at essentially the same time with University vehicles. Passed.

COOPERATIVE CENTER FOR GRADUATE STUDY

Announcement has been made by the presidents of the two institutions that Clemson University and Columbia College have established a Cooperative Center for Graduate Study on the Columbia College campus. The initial graduate courses will be offered during the 1970 summer session of Columbia College.

This arrangement is similar to the ones which Clemson has with certain other privately supported four-year colleges within South Carolina.

EXTENSION COMPLETES \$100,000 PICTURE PROJECT

A four-year project for producing identification aids for important insects and plant diseases in the United States has been completed by Clemson's Extension Entomology-Plant Pathology Section and the Department of Agricultural Communications.

Produced under this project were 250 high quality colored prints and 400 colored slides of common insect and plant disease pests. These have been distributed to 50 states and two territories in quantities of 2,000 picture prints and two sets of 400 colored slides. Distribution also has been made to all S. C. counties. A limited supply is on hand in the Bulletin Room in the P & AS Building.

Strong demand for the pictures is being reflected from many states of the U. S., and the printer, The R. L. Bryan Co., Columbia, has had to reprint several series. Orders have also been filled for agencies in foreign countries.

The aids were produced under a \$100,000 grant from the Federal Extension Service.

ADMINISTRATION

President Robert C. Edwards was a featured speaker at the Southern District Recreation and Park Conference held at the Francis Marion Hotel in Charleston April 7. He spoke on "The Role of Higher Education in the Field of Recreation, Parks and Conservation."

L.G. Rich (Dean, Engr) attended a Federal Water Pollution Control Administration training grant review meeting in Washington, D.C. on Apr. 2-4

COMMUNICATIONS CENTER

Harry Durham, (Director) was recently elected Director of the Mason-Dixon District Conference of the American College Public Relations Association.

Charles Haralson (Photo Lab Supvrsr), Dave Garrison, Bill Osteen, and Tom Shockley (Photographers) attended a meeting of the University Photographers Association at Georgia Institute of Technology April 7-10.

CHEMISTRY

A symposium on recent advances in Natural Products Chemistry was held in this department on Monday, Mar. 16. Speakers included chemists from Florida State University, Duke University, Louisiana State University in New Orleans, and Clemson University. Faculty members and graduate students from several nearby universities and colleges participated in the symposium with the Clemson group.

The Southeastern Section Conference of Undergraduate Student Chemists was held at the Clemson House, Apr. 10-11. The conference was sponsored by the Clemson Student Affiliate Chapter of the American Chemical Society, Dr. C. B. Bishop, advisor. The technical program consisted of 48 research or review papers presented by chemistry students from colleges and universities throughout the southeastern region. Featured speakers were: Dr. Ronald E. LeBleu, E. I. DuPont de Nemours & Co., Inc.; Dr. Charles Tanford, Duke University, Physical Biochemistry Department; and Dr. Hermann Robl, U. S. Army Research Center, Durham, N. C.

ELEMENTARY AND SECONDARY EDUCATION

Chester R. Freeze (Assoc Prof) has published "On Becoming an Open Supervisor," in The High School Journal, March, 1970.

William W. Pennscott (Assoc Prof) was presenter and recorder on a panel entitled "Clients and Counselors Evaluate the Counseling Service" at the American College Personnel Association Convention in St. Louis, Mar. 16-18.

William W. Pennscott (Assoc Prof) has been asked by the State Department of Education to serve on a committee which will study present guidance certification requirements in South Carolina.

ENGLISH

Claud B. Green (Prof & Asst Dean of the Univ) has an essay review entitled "American Studies in the South Pacific" appearing in the Spring, 1970, issue of the Georgia Review.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. E. Skelton (Asst Prof) and S. G. Turnipseed (Assoc Prof, Edisto Station), attended the conference on Concepts of Pest Management, sponsored by North Carolina State University, in Raleigh, N. C., Mar. 24-27.

ENTOMOLOGY AND ECONOMIC ZOOLOGY (continued)

J. B. Kissam (Assoc Ext Spec), Raymond Noblet (Asst Prof), T. R. Adkins, Jr. (Prof), and W. F. Krebs (Grad Res Asst) visited the Patuxent Wildlife Research Center in Laurel, Md., Mar. 22-26, for conferences with scientists working on black flies and Leucocytozoon disease.

W. Bruce Ezell, Jr. (Grad Res Asst) was awarded a Goethe Travel Award to attend the Association of Southeastern Biologists Meeting at Lakeland, Fla., Apr. 2-4. Mr. Ezell delivered a paper co-authored by T. R. Adkins, Jr. (Prof) entitled, "Methods of Collecting Tabanidae."

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Asst Prof) attended a specialty conference sponsored by the American Society of Civil Engineers in Washington. The topic of the Mar. 12-13 meeting was "Is Water Quality Enhancement Feasible?"

B. C. Dysart (Asst Prof) presented an invited seminar on "Regional Water Quality Management Systems" in Chicago on Mar. 19. This seminar was presented for research and development personnel of the Metropolitan Sanitary District of Greater Chicago.

INTERDISCIPLINARY STUDIES IN ENGINEERING

S. F. Hulbert (Hd), H. H. Wilson (Prof, CrE), and D. A. Venkatu (Research Scientist, Owens-Illinois) had the paper entitled "Kinetics of the Reaction Between MgO and Fe_2O_3 in Powder Compacts" published in Transactions of the British Ceramic Society, Vol. 69 (1) 1-7 (1970).

S. F. Hulbert (Hd), J. J. Klawitter (Asst Prof), C. D. Talbert (Grad Stu), F. A. Young (Asst Prof), R. G. Topazian (Head of Oral Surgery, Medical College of Georgia), and W. B. Hammer (Asst Prof of Oral Surgery, Medical College of Georgia) presented the paper entitled "A Histologic Study of Ceramic-Bone Compatibility" at the 48th Annual Meeting of the International Association for Dental Research, New York City, Mar. 16.

F. A. Young (Asst Prof), S. F. Hulbert (Hd), and B. F. Lawson (Assoc Prof & Chairman of Oral Medicine, School of Dentistry, Medical University of South Carolina) presented the paper entitled "Ceramic Tooth Implants" at the 48th Annual Meeting of the International Association for Dental Research, New York City, Mar. 18.

S. F. Hulbert (Hd) participated in a Public Health Service Site Visit at Georgia Tech., Mar. 19 and 20.

MATHEMATICS

Joel V. Brawley, Jr. (Assoc Prof) lectured on "Algebraic Cryptography" at Seneca High School on Mar. 25 and at Wade Hampton High School (Greenville) on Mar. 31.

MATHEMATICS (continued)

K. T. Wallenius (Assoc Prof) visited the Universities of North Carolina at Chapel Hill and Raleigh on Mar. 26 and 27. He presented a paper on "Sequential Inspection Processes" to a colloquium sponsored jointly by Statistics and Operations Research on the Raleigh campus.

MECHANICAL ENGINEERING

The National Science Foundation has approved a grant in the amount of \$15,000 for the study of "The Effects of Suspended Particles on The Fluid Turbulence in Pipe Flow." Dr. C. A. Brandon will use the laser-doppler anemometer recently obtained by the Mechanical Engineering Department to measure turbulent energy spectra in air flows with and without large suspended particles.

MILITARY SCIENCE

Vincent D. R. Guide (Assoc Prof) and Russell J. Stoewe (Assoc Prof) recently addressed the Naval Reserves Officers School in Greenville, S. C. The subject of LTC Guide's talk was "Role of the Military Establishment in Insurgency Operations," with emphasis placed on U. S. Actions to Vietnamese in the war. CPT Stoewe lectured on the activities of U. S. units operating in Vietnam.

SOCIAL SCIENCES

David F. White (Asst Prof) and J. L. McCollough (Asst Prof) attended the meetings of the Southern Society of Philosophy and Psychology at Durham, N.C., Mar. 27-28. Professor White was the commentator for a paper on "Arguments for and Against Ethical Egoism."

R. S. Lambert (Prof) and E. M. Lander (Alumni Prof) attended the Symposium of Scholars on the Southern Colonies and The Atlantic World sponsored by the South Carolina Tricentennial Commission at Columbia, Mar. 19-21. Professor Lambert was chairman of a session on "The Quakers and the Southern Colonies."

CALENDAR OF CAMPUS EVENTS

April 15- Wed.- May 15 Fri.		1969 Homes For Better Living Awards, Lee Hall Gallery
April 16 Thur.		Baseball - Belmont Abbey at Clemson
April 16- Thur.- April 17 Fri.		Symposium on Materials For Implant Dentistry, Clemson House
April 18- Sat.- April 19 Sun.	3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre
April 18 Sat.		Baseball - Virginia at Charlottesville, Va. (2 games)
April 19 Sun.		Baseball - Maryland at College Park, Md.
April 20 Mon.	4:00 p.m.	Agronomy Seminar - Mr. John Van Duyn, Entomology, will present Genetic Resistance to Mexican Bean Beetle in Soybeans - Room A203, P&AS Building.
April 22 Wed.	4:00 p.m.	University Communications Center presents Dr. David Husband, Assistant Professor of Biology at the University of South Carolina, to speak on "Audio-Tutorial Philosophy," in Room A101, P&AS Building.
April 23 Thur.	4:00 p.m.	Chemistry Lecture Series - H.L. Clever of Emory University, Physical Chemistry - Room 131 Brackett Hall.
April 23 Thur.	4:00 p.m.	Biochemistry Seminar - Speaker: Dr. Anthony Rose, Bath University of Technology at Claverton Down, England. He will speak on "Biochemical Studies of Membrane Biosynthesis by Yeast Cells" - Room A101, P&AS Building.
April 24 Fri.		Dental Aptitude Test, Room 20, Tillman Hall.
April 25- Sat.- April 26 Sun.	3:00 p.m.	Clemson Area Youth Theatre, Daniel Hall Theatre.
April 25 Sat.		Graduate Record Examination, Room 20, Tillman Hall.
April 27 Mon.		Exams begin.
April 28 Tues.	4:00 p.m.	Biochemistry Seminar - Speaker: Dr. Billy Baggett, Biochemistry Department, Medical University of South Carolina. He will speak on "Adenyl Cyclase in the Ovary" - Room A101, P&AS Building.

APR 30 1970

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 9 No. 17

May 1, 1970

FOUR MEN TO RECEIVE HONORARY DEGREES

Four men who have distinguished careers in politics, industry, education, and agricultural research will be awarded honorary degrees at the University's 74th Commencement Friday, May 8. Graduation exercises will be held in J. C. Littlejohn Coliseum at 11 a.m.

The group includes U. S. Congressman William Jennings Bryan Dorn who will receive an honorary Doctor of Laws degree. Also to receive the honorary Doctor of Laws degree is States Rights G. Finley, a Clemson alumnus and former board chairman of the Electric Power Board of Chattanooga, Tenn.

President Paul Hardin III of Wofford College will receive the Doctor of Humane Letters degree, and Dr. Edward P. Knipling, director of the entomology research division in the U. S. Department of Agriculture's Research Service, will be awarded the honorary Doctor of Science degree.

ASSOCIATE DEANS, SUMTER DIRECTOR NAMED

The College of Engineering has established two new associate dean positions and has named Dr. Samuel F. Hulbert and Dr. Lyle C. Wilcox to fill them. Dr. Hulbert will become associate dean for engineering research and interdisciplinary programs, and Dr. Wilcox will serve as associate dean for professional studies. The appointments become effective July 1.

Jack C. Anderson Jr., assistant professor and head of the mathematics department at the university's Sumter campus, has been named director of the two-year undergraduate center, effective July 1. He replaces Dr. Samuel M. Willis, who will become dean of university extension on the main campus.

AN INVITATION TO THE UNIVERSITY STAFF

The Clemson Alumni Association is seeking to build an Alumni Center (consisting of alumni office space and a lounge) on the campus. The University Board of Trustees and Administration have provided a beautiful campus site on the hill just west of Sherman Street.

The estimated cost of the Alumni Center is \$300,000, of which \$87,000 is in hand. Alumni and friends of the University are being asked to subscribe to the needed \$213,000 before October 15.

AN INVITATION TO THE UNIVERSITY STAFF Continued

"Just as every alumnus of the University has been invited to participate in this project," Roy Pearce, Chairman of the Alumni Center Fund, said, "so do we invite every member of the University staff to help make this needed facility a reality. You may make your gift to the Alumni Center Fund and mail it to the Clemson Alumni Association, Clemson, S. C."

Alumni are being asked to make gift commitments to be paid over a three-year period (1970, 1971 and 1972).

If commitments total \$213,000 by October 15, the contract will be let soon thereafter; if not, gifts made for this purpose will be returned to the donors. Any oversubscription will be used in the Alumni Association's scholarship program.

Nucleus financing for the Alumni Center was provided by a \$72,000 bequest from the late Walter H. Scott, of Decatur, Ga., a member of the Class of 1901.

A Book of Donors will be permanently preserved in the lobby of the Alumni Center. The names of all donors (with no reference to gift amounts) will be preserved there. Gifts to the Alumni Center Fund are tax deductible.

MINUTES OF THE MARCH RESEARCH FACULTY COUNCIL MEETING

The Research Council convened its March meeting at 4:00 p.m, March 26, 1970, in Room 36, Tillman Hall.

Dr. John Pearce, President of the Faculty Senate, discussed the proposed constitution for a merged Council and Senate, and indicated the reasons for the minor revisions that were approved by the Senate. The Council then discussed the merger and revised constitution, and voted to recommend to the Research Faculty that it approve the merger and the proposed new constitution with revisions.

Through Chairman Kingsland, Dean Hurst informed the Council that state law regulates per diem costs for official trips. The Council has recommended the use of private cars to reduce the number of Motor Pool vehicles tied up at the Charlotte and Atlanta airports. Also, the Council has submitted several recommendations for policy changes involving retirement pensions, and requested that these suggestions be passed on to the appropriate state officials.

The following resolution was approved: The Research Faculty Council recommends that tenured faculty members participate in the selection of the department head in their respective departments, when a vacancy in this position occurs. It is further suggested that this recommendation be included in the next revision of the Manual for Faculty Members.

The need for some central research facilities was discussed, and a resolution relating to such matters is to be drawn up and submitted to the appropriate faculty body at a later meeting.

INSTITUTIONAL SELF-STUDY COMMITTEES

The following members of the faculty and staff of Clemson University have agreed to serve as chairmen of the University and College or School Committees.

University Committees: Purpose--J. H. Hobson; Organization and Administration--H. H. Macaulay; Educational Program--J. M. Stepp; Financial Resources--C. E. Woodall; Faculty--J. V. Reel, Jr.; Library--J. L. Idol, Jr.; Student Personnel--R. W. Moorman; Physical Plant--E. B. Rogers, Jr.; Special Activities--L. H. Davis; Graduate Program--H. E. Vogel; Research--D. W. Lyons; Planning for the Future: Summary and Recapitulations--H. N. Cooledge.

Colleges and Schools Committees: Agriculture and Biological Sciences--W. J. Lanham; Architecture--P. R. Lee; Education--M. A. King; Engineering--D. W. Bradbury; Industrial Management and Textile Science--G. D. Riggs; Liberal Arts--E. P. Willey; Nursing--Elizabeth J. Hall; Physical and Mathematical Sciences--J. W. Kenelly.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. J. Lanham (Hd) participated in the Conference on Rural Development: Problems and Advantages of Rural Locations for Industrial Plants, Raleigh, N. C., Mar. 24-25. Dr. Lanham served on the planning committee for this southern regional conference.

ARCHITECTURE

Robert Hunter (Prof) and Sam Wang (Asst Prof) attended national meeting of Society for Photographic Education at the University of Iowa, Mar. 23-25.

Robert Hunter (Prof) and J. Acorn (Assoc Prof) have works of art represented in the Tricentennial Exhibition of Contemporary Artists of South Carolina, Greenville County Museum of Art, April-May; Columbia Museum of Art, June-July; Gibbes Gallery, Charleston, S. C., 1970.

H. H. Williamson (Assoc Prof) has a paper entitled "Who Educates Specification Writers?--A Consideration of the Weaknesses in Undergraduate Education in Specification Writing" published in the May Construction Specifier, The Journal of the Construction Specifications Institute.

Sydney Carter (Lect) has been elected Vice-Chairman of the Augusta-Richmond County Government Study Committee. This body was created by a legislative act and local referendum to study the consolidation of city and county or alternatives.

Sydney Carter (Lect) was appointed a state judge in the Community Improvement Program sponsored by the Georgia Federation of Women's Clubs and the Sears-Roebuck Foundation.

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) was co-author with D. D. Reneau and M. H. Knise of "A Computer Simulation Showing Multiple Minute Hypoxic Areas in Cerebral Tissue as a Result of Sludged Blood," 5th European Conf. Microcirculation, Bibl. Anat., No. 10, pp. 540-548.

R. C. Harshman (Prof) received the Dean's Faculty Award for Effective Innovation in Undergraduate Teaching.

D. F. Bruley (Assoc Prof) presented a seminar "Studies in Process Dynamics and Control," American Enka Corporation, Enka, N. C., Feb., 1970.

The Clemson Student Chapter of the American Institute of Chemical Engineers hosted the Southern Regional Conference of Student Chapters of AIChE. Over 80 students from 14 southeastern universities attended the two day meeting. Clemson students presenting papers were Barry Ornitz and Jeff Palmer. Mr. Ornitz won second prize in the paper judging. F. C. Alley (Prof) is adviser for the Clemson group.

Tennessee Eastman Corporation presented a check for \$4000 to help support an MS level student in chemical engineering for 1970-71.

CHEMISTRY AND GEOLOGY

A grant of \$6,670 has been received from the Research Corporation toward the purchase of a Mossbauer Spectrometer. The proposal was submitted by J. F. Allen (Assoc Prof), J. C. Fanning (Assoc Prof), and J. F. Geldard (Asst Prof).

The following papers were presented by undergraduate students at the Southeastern Sectional Conference of Undergraduate Student Chemists, held at the Clemson House, Apr. 10-11:

G. C. Summerall (Stu) and J. R. Bacon (Asst Prof), "The Development of a Phase-Sensitive Alternating Current Polarograph."

Bethany S. Franke (Stu) and J. C. Fanning (Assoc Prof), "A Thermal Preparation of $\text{HFe}^{+3} \text{Fe}^{\text{II}}(\text{CN})_6$."

T. B. Jones (Stu) and J. Jacobus (Asst Prof), "Intrinsic and Torsional Diastereomers: The Optical Purity of (+)-(S)-Deoxyephedrine."

G. B. Savitsky (Assoc Prof) and W. A. Tallon (Grad Stu) participated in an advanced workshop on NMR spectroscopy held at the University of Florida, Apr. 6-11.

G. M. Haselton (Asst Prof) has been invited by the Geological Survey of Canada to participate in the field mapping of the eastern district of Keewatin west of Hudson Bay. He will be in Canada most of the summer.

P. K. Birkhead (Assoc Prof), V. S. Griffin, Jr. (Assoc Prof), and R. D. Hatcher, Jr. (Asst Prof) attended the Southeastern Section Meeting of the Geological Society of America, Apr. 1-4, Lexington, Ky. Dr. Griffin was chairman of a technical session and Dr. Hatcher presented the paper, "Stratigraphic Controls and Thrusting Along the Brevard Zone."

COUNSELING CENTER

Dr. Virginia S. Hardie (Dir) addressed The Georgetown County Mental Health Association on April 7. Title of her address was "The Challenge of Mental Health." She also served as the leader of a discussion group on "The Effects of Drugs on the Emotional Development of Children and Youth" at the annual meeting of The South Carolina Congress of Parents and Teachers on April 21 in Greenville.

Dr. Hardie presented a lecture on "Personality" at a session of the Clemson Area Continuing Education Center on April 28. She also was one of 15 professionals serving as an information specialist to give information about services for mentally disturbed adolescents following an NBC documentary on mental illness among adolescents entitled "Cry Help," broadcast in Charleston, Greenville and Columbia on April 25. These professionals were on tap at the South Carolina Mental Health Association Offices in Columbia to answer questions by free telephone service following the TV broadcast.

ECONOMICS

Hugh H. Macaulay (Alumni Prof) spoke to the faculty and students of Presbyterian College on Feb. 27 and to the faculty and student members of Omicron Delta Epsilon, the honorary economics society, at the University of Georgia on Mar. 3. Both talks dealt with economic aspects of pollution.

B. R. Skelton (Assoc Prof) and L. W. Skelton (Instr, Hist, Clemson University at Greenville) have an article entitled "Labor Organizations in South Carolina" in The Clemson University Review of Industrial Management and Textile Science.

Bruce Yandle, Jr. (Asst Prof) was co-author of an article with Raymond Strangways (Georgia State University) entitled "Effect of State Usury Laws on Housing Starts in 1966" to be published in the Journal of Financial and Quantitative Analysis.

ELECTRICAL ENGINEERING

R. W. Snelsire (Assoc Prof) presented a paper entitled "The Moving Window Approach to Real Time Pattern Recognition" at the annual Biomedical Symposium in San Diego, Calif., on Apr. 7.

National Science Foundation awarded a \$15,000 initiation grant to the Electrical Engineering Department for the study of the "Detection and Estimation of Fetal Electrocardiograms." Principal investigator is Donald C. Amoss (Asst Prof).

Union Carbide Corporation has presented a \$3,000 unrestricted gift to the Department of Electrical Engineering for support of its program.

ELEMENTARY AND SECONDARY EDUCATION

H. W. Landrith (Dean, Educ), C. R. Freeze (Assoc Prof), G. W. Gray (Assoc Prof) have co-authored an article "Teacher Aide - A New Perspective In Teacher Education" appearing in The South Carolina Education Journal.

ENGLISH

John Idol (Assoc Prof) and M. A. Owings (Hd) attended the Southeastern Renaissance Conference, Apr. 11-12, in Chapel Hill, N. C.

Arthur Fear (Assoc Prof) and Jerry Blanche (Instr) attended the annual meeting of the South Carolina Speech Association in Columbia, Apr. 3-4. Dr. Fear is president of the association. Mr. Blanche, secretary-treasurer, was elected vice-president.

Arthur Fear (Assoc Prof) and Jerry Blanche (Instr) represented South Carolina at the annual meeting of the Southern Speech Association held in Winston-Salem, N. C., Apr. 7-10. Both are members of the Executive Committee.

Harriet Holman (Assoc Prof) has an article, "Hog, Bacon, Ram and Other 'Savans' in Eureka: Notes toward Decoding Poe's Encyclopedic Satire" in the October 1969 issue of Poe Newsletter.

C. B. Green (Asst Dean of the Univ), H. M. Cox (Dean, Liberal Arts), Norman Olsen (Assoc Prof), and E. M. Lander (Alumni Prof, Hist) attended the biennial meeting of the Southeastern American Studies Association in Durham and Chapel Hill, N. C., on Apr. 10-11.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Edwin W. King (Prof) has been appointed to represent South Carolina on the membership committee of the Southeastern Branch, Entomological Society of America, for 1970.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Hd) presented a seminar to the faculty and students of the Institut Für Wasserversorgung, Abwasserreinigung und Gewässerschutz and the Institut Für Biochemische Technologie und Mikrobiologie. Both institutes are a portion of the Technical University of Vienna in Austria. The seminar was entitled "Mathematical Modeling and Computer Simulation of the Anaerobic Digestion Process" and was presented on Apr. 3, in Vienna.

FOOD SCIENCE AND BIOCHEMISTRY

W. P. Williams (Hd) attended the National Workshop on Environmental Health Education held at Indiana State University, Terre Haute, Ind., Apr. 8-10.

L. E. Vereen (Asst Prof) presented a seminar entitled, "Effect of Metal Ions on Cell Charge and Movement of Bacteria Through Sand," to the faculty of the University of Georgia Microbiology Department, Apr. 3.

R. F. Borgman (Assoc Prof) and J. J. Jen (Asst Prof) attended the 54th annual meeting of the Federation of American Societies for Experimental Biology, where Dr. Borgman presented a paper entitled, "Effect of Dietary Roughage of Experimental Cholelithiasis in Rabbits," Apr. 12-17.

INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

William C. Laffoday (Coordinator, PDP) gave the Honors and Awards Day speech to the students at the university's Sumter campus on Apr. 8. He will also deliver the keynote address at the Annual Apparel Buyers Association in Charlotte, N. C., on May 5, and will give an address at the Annual Ladies Night banquet of the National Association of Accountants (Western Carolinas Chapter) in Greenville on May 14.

INDUSTRIAL MANAGEMENT

C. H. Whitehurst (Hd), on leave at Edinburgh University, addressed third year graduate students in the Diploma in Management Studies program of the Edinburgh College of Commerce at their annual residential conference held at Peebles, Scotland, Feb. 27-Mar. 1. His topic was "Your American Counterpart: A Profile." He was also an invited participant at a Seminar on the Soviet Union in Europe and the Near East: Her Intentions and Capabilities sponsored by the Department of Extramural Studies of the Southampton University and the Royal Science Institution. The three-day seminar, Mar. 23-25, held at Bournemouth, England was attended by representatives of the British and American Armed Forces, defense and strategic studies lecturers from all major British universities as well as personnel from the Foreign and Commonwealth Office and representatives of the German Ministry of Defense.

MILITARY SCIENCE

William M. Shepherd (Assoc Prof) attended the first meeting of the Student Inter-university Symposium on National Affairs, held at Virginia Polytechnical Institute in Blacksburg, Va., Mar. 25-28. The symposium centered about the topic "Red China and Its Effect on the Foreign Policy of the United States."

John F. Hare (Assoc Prof) was the principal speaker for the Seneca High School ROTC Military Ball and Banquet on Apr. 9. LTC Hare's talk was on Thailand. Colonel Jerry Sage, Deputy Chief of Staff for ROTC Affairs, 3d United States Army also was a guest.

NURSING

Elizabeth J. Hall (Assoc Prof) gave the Centennial Address on the "Future of Maternal and Child Health Nursing" at the Childrens Hospital, Washington, D. C., on Apr. 9. The centennial celebration was held in association with the national meetings of the American Academy of Pediatrics.

PHYSICAL PLANT

Daniel J. Boyer has been named superintendent of planning and engineering at the University. Boyer is a registered architect with degrees from the University of Houston and Texas A. & M. University. He was project architect and planner with Lucas and Stubbs Associates, Ltd. in Charleston and held previous positions with several Texas firms.

PHYSICS

More than 2000 elementary and high school students have attended special planetarium shows presented in the Department of Physics during the past year. There have been a total of 63 special lectures presented by members of the faculty and graduate students. In each case the level of presentation is adjusted to match the particular audience in attendance. This entire program is provided by the Department of Physics as a public service to promote a greater interest in Science and, hopefully, a better understanding of its problems.

Each year the Department of Physics invites all high school physics teachers in the upper part of the state to bring their classes to the campus for a lecture-demonstration, planetarium show, and an opportunity to discuss any questions related to physics with faculty members. This year 11 high schools took advantage of this opportunity and brought a total of 348 physics and other science students to visit this department.

D. R. Overcash (former Grad Stu), M. J. Skove (Prof), and E. P. Stillwell (Prof) published an article in the November issue of the Physical Review entitled "Effect of Elastic Stress on Some Electronic Properties of Indium."

W. E. Gettys (Assoc Prof) presented an invited talk on Mar. 12 at Wake Forest University entitled "Antisymmetry, Nonorthogonality, and Nucleon Scattering."

A. L. Laskar (Assoc Prof) presented a paper entitled "Diffusion of Potassium in Potassium Azide" at the meeting of the Solid State Division of the American Physical Society in Dallas, Tex., Mar. 26.

F. J. Keller (Asst Prof) was co-author with F. W. Patten (Naval Research Laboratory) of a paper entitled "ESR Observation of Frenkel Defect Production by Post-Irradiation Electron-Hole Recombination in KCl" at the Solid State Division Meeting of the American Physical Society in Dallas, Tex., on Mar. 25.

F. J. Keller (Asst Prof) presented a lecture-demonstration on Physics at the Belton-Honea Path High School for 250 members of their science club on Apr. 7. Dr. Keller also presented a paper at the spring meeting of the American Physical Society in Washington, D. C., on Apr. 27, entitled "ESR Observation of Thermal Reorientation of V_K Centers in RbI." This paper was co-authored by R. B. Murray and R. D. Popp of the University of Delaware.

PLANT PATHOLOGY AND PHYSIOLOGY

N. D. Camper (Asst Prof) and Margaret A. Boulware (Grad Res Asst) attended the 31st annual meeting of the Association of Southeastern Biologists at Lakeland, Fla., Apr. 2-4. The following papers were presented in the joint sessions of the Southern Section of the American Society of Plant Physiologists:

N. D. Camper, "Sorption of six s-triazines to proteins"

M. A. Boulware and N. D. Camper, "Effects of some chemicals on the stability of isolated protoplasts"

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Assoc Prof) spoke to the representatives of the 8 Presbyteries in South Carolina who were meeting at "Bethelwoods" near York on Apr. 3 and 4. As chairman of The Task Force sponsoring this Workshop, Stevenson spoke on the topic, "Trends, Problems and Opportunities Facing Church Camp - Conference - Retreat Centers in the 70's."

RESEARCH COORDINATING UNIT

Robert H. White (Assoc Prof & Asst Dir - on leave) was in Clearwater, Fla., Mar. 30-Apr. 1, attending the Southwide State Advisory Council Evaluation Conference. White, who currently is serving as Executive Director of the South Carolina Advisory Council on Vocational Education, had been asked to preside over one of the three general meetings at this conference.

John H. Rodgers (Dir) attended the Annual Meeting for Directors of Research Coordinating Units. This meeting is sponsored annually by the U. S. Office of Education and was held in Houston, Tex. The program was organized and directed by the Center for Vocational Education at The Ohio State University.

SOCIAL SCIENCES

J. L. Arbena (Asst Prof) presided at a session on "Trends in Economic Interpretations in Latin America," during the Southeastern Conference on Latin American Studies at the University of South Carolina, Apr. 2-4.

J. V. Reel (Asst Prof) has published "The English Parliament and the Theory of Corporation," in South Carolina Historical Association, Proceedings (1969).

W. C. Capel (Asst Prof - on leave) and Bernard Caffrey (Asst Prof) read "Social-Psychological Correlates of Personal Bankrupts and Poor Credit Risks," at the Southern Sociological Society meetings in Atlanta, Apr. 10.

STUDENT HEALTH SERVICE

Dr. James H. Bowers (Assoc Dir) has volunteered to serve in South Vietnam for 60 days under a program sponsored by the American Medical Association (AMA). He plans to arrive in Saigon on May 4. The AMA program -- "Volunteer Physicians for Vietnam" -- is designed to keep about 30 American doctors in South Vietnam at all times to help relieve a critical shortage of physicians.

TEXTILE SCIENCE

Donald W. Lyons (Assoc Prof) and Pierre Seveno (Grad Stu) presented a paper entitled "The Sound of Fibers Breaking" at the 1970 Technical Conference of the Fiber Society held at Clemson Apr. 22-24.

Robert H. Barker (Assoc Prof) and Kwan-nan Yeh (Post Doc Grad Stu) presented a paper entitled "Thermochemistry of Flammable Fabrics" at the 1970 Technical Conference of the Fiber Society at Clemson Apr. 22-24.

Thomas D. Efland (Assoc Dean) presented a paper "Quality Control of Double Knit Fabrics" at the annual meeting of Textile Quality Control Association (TQCA) on Mar. 19.

Robert H. Barker (Assoc Prof) presented lectures on "The Effects of Selected Model Flame Retardants on the Pyrolysis and Combustion of Cellulose" to M & T Chemical Corporation, Rahway, N. J., on Mar. 16, and to Westvaco, Charleston, S. C., Mar. 26.

J. L. Lundberg (Assoc Prof) and I. M. Hardin (Grad Stu) presented a paper, "Light Scattering from Fibers" at the Fourth International Symposium of the Swiss Society of Chemists and Colorists, Mar. 18, in Zurich, Switzerland.

J. L. Lundberg (Assoc Prof) presented a seminar on "Molecular Clustering in Adsorption and Solution" at the Department of Polymer Technology of the Royal Institute of Technology in Stockholm, Sweden, on Mar. 25.

ZOOLOGY

Averett S. Tombes (Assoc Prof) published on Apr. 21 a textbook entitled "An Introduction to Invertebrate Endocrinology" 215 pp. by Academic Press, New York and London.

Averett S. Tombes (Assoc Prof) presented a paper entitled "Scanning Electron Microscopy of Arthropod Endocrine Structures" at the Southeastern Electron Microscopy Society, Gainesville, Fla., Apr. 10 and 11.

Roy T. Sawyer (Asst Prof) has recently published "The juvenile anatomy and post-hatching development of the marine leech, Oceanobdella blennii (Knight-Jones, 1940)" in Journal of Natural History, and "A new species of 'tentacled' marine leech from the subantarctic islands of Marion and Crozet," in Report of the South African Scientific Expeditions.

Edmund D. Brodie, Jr. (Asst Prof) presented a paper, "A new salamander, Plethodon gordonii, from Oregon" at the 50th annual meeting of the American Society of Ichthyologists and Herpetologists, Mar. 26-30, in New Orleans, La.

GIFTS AND GRANTS

Carolinas Golf Association, \$500 to Horticulture, for evaluation of turf varieties.

Radlo of Georgia, Inc., \$2,500 to Poultry Science, for research on producing low-cholesterol eggs.

Stull Brothers, Inc., \$200 to Pee Dee Station, for testing of corn hybrids in South Carolina.

Shell Development Company, \$1,500 to Horticulture, for studies of weed control in South Carolina.

Shell Chemical Company, \$500 to Edisto Station, for research on control of arthropods on soybeans.

Abbott Labs, \$750 to Horticulture, for studies of chemical thinning of peaches.

Lipton Tea Company, \$4,000 to Truck Station, for tea research.

Monsanto Company, \$750 to Agronomy and Soils, for studies of weed control in corn and soybeans.

Gerber Products Company, \$1,500 to Horticulture, for pear research.

3-M Company, \$500 to Agronomy and Soils, for research into weed control in cotton and soybeans.

Rhodia, Inc., \$1,000 to Entomology and Economic Zoology, for studies involving fruit and pecan insects.

McNair Seed Company, \$200 to Pee Dee Station, for corn performance trials.

Pioneer Corn Company, \$200 to Pee Dee Station for corn performance trials.

Sandoz-Wander, Inc., \$750 to Agronomy and Soils, for weed control in cotton studies.

S. C. Soybean Board, \$8,700 to the Departments of Agronomy and Soils and Entomology and Economic Zoology, for studies involving soybean research.

Stauffer Chemical Company, \$500 to Agronomy and Soils, for studies of weed control in corn and cotton.

CALENDAR OF CAMPUS EVENTS

May	2	Sat.	Graduate School Foreign Language Test, Room 20, Tillman Hall.
May	4	Mon. 9:00 a.m.	Educational Council Meeting.
May	5	Tues.	Baseball - South Carolina at Clemson.
May	8	Fri. 9:00 a.m.	Commissioning Exercises, Littlejohn Coliseum.
May	8	Fri. 11:15 a.m.	Commencement, Littlejohn Coliseum.
May	8	Fri.	Baseball - Virginia at Clemson.
May	9	Sat.	Baseball - Maryland at Clemson (2 games).
May	11-	Mon.-	In-service training school for Dairy Science Extension Service.
May	15	Fri.	
May	15-	Fri.-	Theses 1970, Lee Hall Gallery.
June	30	Tues.	
May	18	Mon.	First Summer Session Begins.
June	12-	Fri.-	Alumni Reunion Weekend.
June	14	Sun.	
June	29	Mon.	Second Summer Session Begins.
July	11	Sat.	Graduate Record Examination, Room 20, Tillman Hall.
July	18	Sat.	Graduate School Foreign Language Test, Room 20, Tillman Hall.
Aug.	8	Sat.	Graduation.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 1

August 15, 1970

BRYAN TO RETIRE SEPT. 1; NICHOLAS APPOINTED VICE PRESIDENT FOR DEVELOPMENT

W. Wright Bryan, Vice President for Development since 1964, is retiring Sept. 1. Appointed to succeed him is Stanley G. Nicholas who has served as Director of Engineering Research here since 1962.

In making the announcement, President Robert C. Edwards said Mr. Bryan's "leadership and dedicated service to the University have been invaluable to the total Clemson family. In addition to his outstanding contributions to Clemson, Mr. Bryan has made truly significant contributions to society as a noted journalist. We are grateful that he has willingly agreed to continue to make himself available to the University for special assignments. His most significant assignment following retirement will be to write a history of the University."

"We are extremely fortunate that we already have on our staff a man of Mr. Nicholas' outstanding abilities and accomplishments," the President said. "Under his directorship the engineering research programs have made remarkable advancements. It is with great enthusiasm that we look forward to a continuingly effective development program under his capable guidance."

Mr. Bryan, a Clemson alumnus who grew up on the University campus, was an outstanding national journalist and newspaper executive for almost 40 years prior to assuming his position.

Mr. Nicholas, a mechanical engineering graduate from Northwestern University, came to Clemson as Director of Engineering Research after an 8-year career with the Continental Can Company where he held several executive positions.

TRUSTEES APPROVE RECORD BUDGET

Clemson trustees have approved an \$18,489,896 budget for 1970-71 academic programs of the university, compared with \$16,405,111 in the 1969-70 fiscal year. Increased enrollment and higher wage and price levels throughout the economy make the greater expenditures necessary.

"We recognize," President Edwards said in recommending the new budget, "that under present economic conditions the university must operate with a degree of austerity. We are grateful to the General Assembly, however, for making appropriations as generous as they could under current circumstances. We have adjusted the university budget accordingly. While we will not be able to do all the

TRUSTEES APPROVE RECORD BUDGET Continued

things we would like to increase Clemson's usefulness, I can assure the university family and the people of South Carolina that we will hold our own in all programs and even be able to make advances in some fields."

In addition to support of the academic program, Clemson's budget provides for auxiliary enterprises such as food service and housing, research programs, agricultural extension, and various public service activities such as fertilizer inspection and analysis and livestock-poultry health. These bring the total budget for current operations to \$37,922,675 in 1970-71, compared with \$34,351,756 in 1969-70.

This total budget is to be funded from state appropriations, 50.1 percent; federal appropriations, 13.6 percent; and other sources including auxiliary enterprises and fees, 36.3 percent.

The Clemson budget also contains a \$2,832,900 provision for payment of revenues earmarked by law for interest and amortization of indebtedness incurred for permanent improvements, bringing the grand total of contemplated expenditures for 1970-71 to \$40,755,575.

MCGREGOR HEADS COLLEGE OF FOREST AND RECREATION RESOURCES

Dr. W.H. Davis McGregor has been named dean and Dr. Herbert Brantley associate dean of the College of Forest and Recreation Resources. Creation of the new college on July 1 was a major step toward expansion of teaching, research and public service programs in forestry and recreation during the 70s. The move calls for the present Department of Forestry and the Department of Recreation and Park Administration to form the nucleus of the new unit. Each department will retain its identity and operate as the first two units within the college.

President Edwards says the forestry and RPA programs have much in common and will complement one another in ways to strengthen each program. One area where this will be particularly significant is park management where concern is with the forest resources and in the recreation phase of multiple-use forestry.

President Edwards reports a new building on East Campus to house the new college is being planned this year and occupancy is anticipated in mid-1972.

LUNDBERG HEAD OF TEXTILE DEPARTMENT

Dr. John L. Lundberg, nationally known for expertise in the field of polymer science, has been appointed head of the Textile Department in the College of Industrial Management and Textile Science. He succeeds Prof. Thomas A. Campbell who retired June 30 after 33 years' service. Dr. Lundberg holds a bachelor's degree in chemical engineering from the University of Minnesota and a Ph. D. degree in chemistry from the University of California.

In another faculty appointment in IM&TS, Prof. J.C. Hubbard is in charge of undergraduate textile education and serves as an advisor to all undergraduate

LUNDBERG HEAD OF TEXTILE DEPARTMENT Continued

textile science students. A Clemson alumnus, Prof. Hubbard joined the faculty in 1947. He received the M.S. degree from Georgia Institute of Technology.

FACULTY PROMOTIONS ANNOUNCED FOR 1970-71

Thirty-three members of the teaching and research faculties were promoted in rank for the year 1970-71. Of these, twelve associate professors became professors; fourteen assistant professors became associate professors; and seven instructors became assistant professors.

New full professors are L. M. Bauknight, Jr., agricultural economics and rural sociology; L. W. Baxter, plant pathology and physiology; T. H. Garner, agricultural engineering; H. L. Musen, agronomy and soils; Wesley Witcher, plant pathology and physiology; V. S. Hodges, architecture; Herbert Brantley, recreation and park administration; C. R. Freeze, education; J. W. Hall, chemical engineering; J. C. Hubbard, Jr., textiles; H. J. Wheeler, economics; and F. M. Cholewinski, mathematics.

Promoted to associate professor are B. L. Dillman, agricultural economics and rural sociology; A. B. Carroll, agricultural economics and rural sociology; D. M. Henricks, food science and biochemistry; M. W. Jutras, agronomy and soils; M. J. B. Paynter, microbiology; Samuel Wang, architecture; H. E. Morgan, industrial education; B. C. Dysart, environmental systems engineering; J. K. Johnson, mechanical engineering; G. D. Riggs, industrial management; Bernard Caffrey, psychology; L. L. Henry, English; R. D. Hatcher, geology and F. J. Keller, physics.

Achieving the rank of assistant professor are Jo Ann McNatt, French and Spanish; P. F. Parrado, Spanish; R. L. Saunders, Jr., history; L. E. Seamon, Spanish; M. W. Slann, political science; August Viglione, history; and C. H. Woodell, English.

DIRECTOR NAMED FOR ASSOCIATE DEGREE PROGRAM IN NURSING

Leon Roswal, a New York City native who has been a registered professional nurse for 21 years and who has held various positions in nursing education and service, is director of the associate degree program in the School of Nursing. Roswal comes to the University from a similar position at New York's Dutchess County Community College. He will be responsible for administering the two-year nursing program which includes clinical experience at Anderson Memorial Hospital. He received the registered professional nurse's diploma from Manhattan State Hospital School of Nursing, the bachelor of science degree from Adelphi College and a master of science degree from Teachers College, Columbia University.

PRESIDENT EDWARDS REELECTED VICE CHAIRMAN OF SREB

President Robert C. Edwards has been reelected to another year's term (1970-71) as Vice Chairman of the Southern Regional Education Board. The announcement was made during SREB's annual business meeting in Houston, Tex. President Edwards served as the organization's Vice Chairman for the 1969-70 year.

COMMITTEES FOR INSTITUTIONAL SELF-STUDY

Steering Committee

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C. O. Caskey, Editor & Secretary	602 Strode Tower
J. V. Brawley, Jr.	20 Martin Hall
H. R. Bungay III	302 Lowry Hall
M. B. Farrar	Trustee House
E. H. McCarter	Tillman Hall
K. N. Vickery	Tillman Hall

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VIII. Physical Plant	E. B. Rogers, Jr., Chairman; A. R. Abernathy; R. H. Barker; R. S. Collins; J. B. Copeland; Charles Dimmock; M. C. Long; C. H. Watson; H. H. Williamson

- IX. Special Activities L. H. Davis, Chairman; R. A. Banister; W. H. Durham; Mary L. Hockenberry; W. C. Laffoday; G. R. vonTungeln
- X. Graduate Program H. E. Vogel, Chairman; J. E. Bostic, Jr.; R. J. Calhoun; Eugene Harrison; W. W. Pennscott; A. S. Tombes; C. H. Whitehurst
- XI. Research D. W. Lyons, Chairman; B. E. Gilliland; J. R. Haun; F. J. Keller; M. J. B. Paynter
- XII. Planning for the Future H. N. Cooleedge, Jr., Chairman; J. F. Dickey; P. W. Mims, Jr.; Norman Olsen, Jr.; B. J. Prochaska; R. W. Snelsire

COLLEGES AND SCHOOL COMMITTEES

- A. College of Agriculture and Biological Sciences - W. J. Lanham, Chairman; R. P. Ashworth; J. B. Copeland; W. M. Epps; J. E. Halpin; N. R. Page; J. B. Thomas
- B. College of Architecture - Peter Lee, Chairman; E. L. Falk; R. H. Hunter; R. E. Knowland
- C. College of Education - M. A. King, Chairman; E. T. Carpenter; J. P. Crouch; C. R. Freeze; L. W. Gahan; A. K. Jensen; J. H. Mozley III; J. H. Rodgers; E. N. Tyndall
- D. College of Engineering - D. W. Bradbury, Chairman; N. R. Bauld, Jr. R. W. Gilchrist
- E. College of Forest and Recreation Resources - J. R. Warner, Chm.; L. W. Gahan; G. E. Howard; T. E. Wooten
- F. College of Industrial Management and Textile Science - G. D. Riggs, Chairman; B. R. Skelton; E. A. Vaughn; J. M. Wannamaker
- G. College of Liberal Arts - E. P. Willey, Chairman; J. H. Butler; Bernard Caffrey; J. A. Dean; R. J. Knapp; W. F. Steirer, Jr.
- H. School of Nursing - Elizabeth J. Hall, Chairman; Rose A. Godbout; Aileen S. Prevost; Regina L. Thompson; Harriett E. Whitley
- I. College of Physical and Mathematical Sciences - J. W. Kenelly, Chairman; H. W. Graben; H. G. Spencer

ACADEMIC DEPARTMENTSCollege of Agriculture and Biological Sciences

- | | |
|---|---|
| 1. Agricultural Economics:
W. J. Lanham, Chm.
A. B. Carroll
J. W. Hubbard
J. F. Pittman | 8. Food Science & Biochemistry:
W. P. Williams, Chm.
J. C. Acton
Lynn Crook
J. H. Mitchell, Jr. |
| 2. Agricultural Engineering:
A. W. Snell, Chm.
F. H. Hedden
J. T. Ligon
B. K. Webb | 9. Horticulture:
T. L. Senn, Chm.
R. J. Ferree
E. T. Sims, Jr.
B. J. Skelton |
| 3. Agronomy & Soils:
U. S. Jones, Chm.
G. R. Craddock
C. N. Nolan
T. C. Peele | 10. Plant Pathology & Physiology:
W. M. Epps, Chm.
N. D. Camper
F. H. Smith
Wesley Witcher |
| 4. Animal Science:
R. F. Wheeler, Chm.
J. R. Hill, Jr.
G. C. Skelley, Jr.
J. N. Williams II | 11. Poultry Science:
B. D. Barnett, Chm.
J. B. Cooper
D. E. Turk
W. S. Walker |
| 5. Dairy Science:
W. A. King, Chm.
J. T. Lazar, Jr.
W. L. Northern
G. D. O'Dell | 12. Agricultural Communications:
R. C. Hubbard, Chm.
L. C. Hamilton
Ann Lee McPhail
L. W. Riley
Doris A. Timmerman |
| 6. Entomology & Economic Zoology:
S. B. Hays, Chm.
T. R. Adkins, Jr.
J. B. Kissam
T. E. Skelton | 13. Division of Biology:
Ruth L. Hays, Chm.
Ann W. Baxter
J. E. Fairey III |
| 7. Experimental Statistics:
W. P. Byrd, Chm.
J. R. Hill, Jr.
W. E. Johnston
C. B. Loadholt
J. S. Lytle | 14. Regulatory & Public Services:
L. H. Senn, Chm.
J. S. Evans
R. H. Garrison
W. R. McCaskill
H. V. Rogers
J. B. Thomas |

College of Architecture

No Departmental Committees

College of Education

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Captain J. M. Etheredge
Major M. R. Koldyke, Jr.
2. Agricultural Education:
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W. C. Bowen
E. T. Carpenter
F. E. Kirkley
3. Elementary & Secondary Education:
C. R. Freeze, Chm.
G. W. Gray
T. H. Parry
4. Industrial Education:
H. E. Morgan, Jr., Chm.
P. C. Caley
W. E. West
5. Military Science:
Major John Steed, Chm.
Major J. B. Horton
Captain R. R. Irvin, Jr.
6. Vocational Ed. Media Center:
R. T. Benson, Chm.
R. D. Mattox
Betty P. Watkins
7. Research Coordinating Unit:
J. H. Rodgers, Chm.

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1. Ceramic Engineering:
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W. W. Coffeen
L. B. Starling
H. H. Wilson
2. Chemical Engineering:
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C. H. DuPre
I. A. Jefcoat
S. S. Melsheimer
3. Civil Engineering:
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William Baron
R. E. Elling
J. W. Epps
J. P. Rostron
4. Electrical Engineering:
L. C. Wilcox, Chm.
R. W. Gilchrist
R. W. Snelsire
J. N. Thurston
M. L. Wolla
5. Engineering Mechanics:
R. F. Nowack, Chm.
W. E. Castro
J. G. Goree
R. W. Moorman
M. K. Richardson
6. Engineering Services:
E. Laitala, Chm.
A. F. Hammond
C. O. Huey, Jr.
C. M. McHugh
7. Environmental Systems:
J. F. Andrews, Chm.
A. R. Abernathy
J. H. Austin
B. C. Dysart III
S. P. Graef
T. M. Keinath
8. Interdisciplinary Studies:
S. F. Hulbert, Chm.
H. R. Bungay III
M. J. Eitel
J. J. Klawitter
R. R. Moore
B. W. Sauer
J. S. Wolf

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| <p>9. Mechanical Engineering:
C. A. Brandon, Chm.
Eugene Harrison
W. G. Hudson
J. K. Johnson, Jr.
C. S. Rudisill
T. T. Yang</p> <p>10. Engineering Analysis Program:
J. L. Edwards, Chm.</p> | <p>11. Technical Operations Program:
E. Laitala, Chm.
J. L. Edwards
C. M. McHugh</p> <p>12. Water Resources Engineering Program:
B. C. Dysart III, Chm.
A. W. Snell
P. B. Zielinski</p> |
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College of Forest and Recreation Resources

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| <p>1. Forestry:
R. M. Allen, Chm.
W. J. Barker
R. E. Schoenike
J. R. Warner</p> | <p>2. Recreation & Park Administration:
G. E. Howard, Chm.
L. W. Gahan
Sarah A. Walker</p> |
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College of Industrial Management
and Textile Science

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| <p>1. Industrial Management:
C. C. Davis, Chm.
C. L. Dyer
T. H. Gunter, Jr.
C. R. Smith</p> <p>2. Economics:
W. C. Whitten, Jr., Chm.
R. D. Shannon
T. B. Yandle, Jr.</p> | <p>3. Textiles:
R. H. Barker, Chm.
J. H. Marvin, Jr.
F. T. Simon</p> |
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College of Liberal Arts

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| <p>1. English:
R. J. Calhoun, Chm.
H. B. Bryant
L. L. Henry
J. J. McLaughlin
M. A. Owings</p> <p>2. Music:
J. H. Butler, Chm.
Edith B. Card
B. F. Cook</p> | <p>3. Languages:
Patricia W. Wannamaker,
J. A. Dean
R. R. McGregor, Jr.
R. F. Mixon</p> <p>4. Social Sciences:
J. L. Arbena, Chm.
F. A. Burtner
Bernard Caffrey
J. L. McCollough
W. H. Owens, Jr.</p> |
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School of Nursing

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|------------------------------|---------------------------|
| 1. Associate Degree Program: | 2. Baccalaureate Program: |
| Sara T. Stokes, Chm. | Elizabeth J. Hall, Chm. |
| Aileen S. Prevost | Rose A. Godbout |
| Harriett E. Whitley | Regina L. Thompson |

College of Physical and Mathematical Sciences

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|---------------------------|--------------------|
| 1. Chemistry and Geology: | 3. Physics: |
| F. B. Brown, Chm. | H. W. Graben, Chm. |
| P. K. Birkhead | W. E. Gettys |
| G. L. Powell | J. R. Manson |
| G. B. Savitsky | M. J. Skove |
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| 2. Mathematics: |
| F. M. Cholewinski, Chm. |
| R. E. Haymond |
| D. R. LaTorre |
| S. M. Lukawecki |
| K. T. Wallenius |

Interdisciplinary Programs

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|-------------------------------|
| 1. Water Resources Institute: |
| A. W. Snell, Chm. |
| B. C. Dysart III |
| J. C. Hite |
| F. J. Lindstrom |
| H. A. Loyacano |

Clemson University at Greenville

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|--------------------|------------------|
| 1. Faculty: | 4. Library: |
| Mary L. O. Edwards | Margaret K. Rice |
| Ann E. Womble | H. H. Thaker |
| | M. S. Van Hoy |
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| 2. Student Personnel: | 5. Educational Program: |
| Iris B. Ibrahim | M. K. Melton |
| Katherine R. Watson | J. T. Rompala |
| | J. R. Strickler |
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| 3. Physical Plant: |
| L. L. Dickens |
| G. K. Jacobs |

ADMISSIONS AND REGISTRATION

At the recent annual meeting of the American Association of Collegiate Registrars and Admissions Officers, Dean Kenneth N. Vickery was chosen President-Elect.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

James C. Hite (Asst Prof) participated in the Earth Day program at Furman University on Apr. 22, and discussed economic aspects of environmental quality problems.

K. R. DeHaven (Asst Prof) presented "Connotations of Market Structure in Fluid Milk Pricing," at annual meeting of S. C. Academy of Science, Apr. 24.

B. L. Dillman (Asst Prof) discussed "Costs of Public Service Delivery in Sparsely Settled Areas," at the Southern Land Economics Research Conference, Pensacola, Fla., Apr. 27-29.

W. J. Lanham (Hd) presented a paper "Evaluating Impact of Promotion on the Market" at the Southern Regional Marketing Conference, Biloxi, Miss., Apr. 8-10.

CHEMICAL ENGINEERING

F. C. Alley (Prof) was elected Chairman of Western S. C. Section of American Institute of Chemical Engineers at May meeting in Greenville, S. C.

W. B. Barlage (Assoc Prof) and J. A. Caskey (VPI) presented a paper entitled "A Simplified Technique for Determining Dynamic Surface Tension of Surfactant Solutions," at the 48th Annual Meeting of the Virginia Academy of Science, May 7-8, Richmond, Va.

S. S. Melsheimer (Asst Prof) attended 1970 Joint Automatic Control Conference, Atlanta, Ga., June 24-26. He served as invited discussor of a paper on Distributed Parameter Process Stability.

COASTAL ZONE MANAGEMENT SYMPOSIUM

Clemson University and the Agricultural Policy Institute at N. C. State University sponsored a symposium on "Management Systems for the Resources of the Coastal Zone," in Charleston on June 8-9. The symposium featured nationally prominent experts from the fields of political science, law, economics, ecology, and planning and drew attendance from the eastern seaboard and Gulf Coast. Co-chairmen for the symposium were J. M. Stepp (Alumni Prof) and J. C. Hite (Asst Prof).

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

Dean W. H. Wiley was among the special participants in a conference with the Secretary and Assistant Secretaries of Agriculture in Washington, D. C., on Apr. 16.

ELECTRICAL ENGINEERING

J. R. Fraker (Instr) presented a paper entitled "Queues with Autocorrelated Inputs" at the meeting of the S. C. Academy of Science in Columbia, Apr. 24.

ELEMENTARY AND SECONDARY EDUCATION

Chester R. Freeze (Assoc Prof) and Jackie R. Harris (Asst Prof) have co-authored an article "Teacher Openness as a Factor of Change in Counselors-In Training" appearing in The Western Carolina University Journal of Education.

Mrs. Elizabeth Galloway (Instr) attended the I.R.A. Conference in Los Angeles; chaired a panel and presented a paper at the Children's Literature and Reading Conference at the University of Georgia; published a working paper for the Development of Language Arts Division of Southeastern Educational Laboratory; and has served as a reading consultant for the Elementary Reading and Adult Reading Program for District #1 in Anderson.

Gordon W. Gray (Assoc Prof) recently chaired a sectional meeting at the I.R.A. Conference in Los Angeles, served as an evaluator for HEW of the Head Start Program in Tennessee; presented a paper at the Workshop for Teachers of Pre-school Children at East Tennessee State University sponsored by Tennessee Department of Public Health.

William W. Pennscott (Assoc Prof) has co-authored with Dr. Mourits Sorensen (Psychologist, Upper Mississippi Mental Health Center, Bemidji, Minn.) an article entitled, "OASIS Achiever Personality and Desire for Improvement in Reading and Study Skills" which appears in the Spring, 1970 issue of Measurement and Evaluation in Guidance.

ENGINEERING MECHANICS

Robert F. Nowack (Assoc Prof) was honored at a recent ASCE Student Chapter Meeting by being voted the "Outstanding Teacher" in both the Civil Engineering and Engineering Mechanics Departments.

ENGLISH

H. Morris Cox, (Prof and Dean, College of Liberal Arts) attended the Conference on Dialectology at the University of Tennessee, Apr. 17-18.

M. A. Owings (Hd) attended the Medieval Conference, May 19-22 at Western Michigan University.

Claud B. Green (Prof and Dean of Undergraduate Studies) has an essay entitled "Henry Timrod and the South" appearing in the May, 1970, issue of The South Carolina Review.

EXTENSION SERVICE

CLEMSON IN PILOT HOUSING EFFORT: Clemson's Cooperative Extension Service has entered into a contract with the Federal Extension Service to develop a pilot program in housing education that may set a pattern for nationwide use.

The project is planned for four years and will receive Federal support of \$60,000 annually.

The objective is to develop educational resources that will facilitate community efforts in meeting housing needs. The pilot project is centered in Anderson, Greenville, and Oconee counties. Frank Hedden, Associate Extension Engineer, is project leader.

An interdisciplinary Clemson University Housing Committee has been formed to serve in an advisory capacity. Committee members are from the Colleges of Architecture, Engineering and Agriculture and Biological Sciences.

CLEMSON INVOLVED IN NUTRITION EFFORT: Malnutrition in South Carolina, highlighted in national news media a year ago, is the target of an educational effort by Clemson's Cooperative Extension Service in 14 counties.

The object is to reach by visits to the home all families believed to be suffering from poor diets; then provide information and encouragement for better planning and allocation of resources for food.

Since May of last year 9,332 families have been visited and 6,474 of these are receiving educational help on a continuing basis. The contacts are being made by 155 "program assistants," non-professional workers (usually from within the community being served).

The program assistants are trained by and are under the supervision of the County Extension Home Economist.

FOOD SCIENCE AND BIOCHEMISTRY

W. P. Williams (Hd) attended a one-day Workshop Conference on Nutrition held in Columbia, May 1. The meeting was sponsored by the S. C. Regional Medical Program.

J. H. Mitchell, Jr. (Prof), Larry E. Vereen (Asst Prof) and W. P. Williams, Jr., (Hd) presented respectively the following papers at the Piedmont Dietetic Association's meeting in Greenville on May 19: "Plant Sources of Proteins," "Microbiological Properties of Vacuum-Sealed Hospital Foods," and "Recent Trends in Diet Therapy."

Donald M. Henricks (Asst Prof) attended the Endocrine Society Meeting, June 9-13, in St. Louis, Mo. and presented a paper entitled "LH and Progesterone Concentrate in Plasma of Pigs."

L. E. Vereen (Asst Prof) and Frank M. Dework (Grad Stu) attended the national meeting of the American Society for Microbiology, Apr. 26 - May 2 in Boston, Mass., and presented papers entitled, "Aversion and Pycnidia Production by Hypyal-tip Isolates of the Diplodia zeae," and "Sporulation of C. perfringens in Vacuum-sealed Meats," respectively.

GEOLOGY

V. S. Griffin (Assoc Prof) has been awarded a grant of \$24,000 for a two-year study of, "Geologic Relationships of the Inner Piedmont, Kings Mountain and Charlotte Belts, S. C."

HONORS PROGRAM

Norman Olsen, Jr. (Chm) addressed the Charlotte Clemson Club on Apr. 24 on the subject of "The Honors Program at Clemson."

HORTICULTURE

W. C. Barnes (Prof and Supt, Truck Experiment Station) represented the Vegetable Industry at a small committee meeting called by the U. S. D. A. at Washington, D.C. May 18-19.

W. C. Barnes (Prof and Supt, Truck Experiment Station) received a "Canner-Packer" award for distinguished service to the Food Processing Industry as per its June issue. This is the fifth time in a little less than four years that the research program of the Truck Experiment Station has been cited for its outstanding contribution to agriculture.

INDUSTRIAL EDUCATION

The following members of the Industrial Education Department attended the American Industrial Arts Association Annual National Convention in Louisville, Ky., Apr. 7-10. Alfred F. Newton (Prof and Hd) participated as discussion leader for the program, "The Nature of Technology - Implications for Industrial Arts Teacher Education," Paul C. Caley (Asst Prof) served as recorder for this program and William E. West (Asst Prof) was also a participant. Dr. Newton also served as panelist on the forum "Man - Society - Technology" and was recorder for the principal address at the Annual Banquet. J. Page Crouch (Asst Prof) served as recorder for the program "Making Things Happen."

J. Page Crouch (Asst Prof) and a group of Graphic Arts students hosted the Apr. 16 meeting of the Greenville Club of the International Association of Printing House Craftsmen, Inc.

MATHEMATICS

The Department of Mathematics was host to the 49th Annual Meeting of the Southeastern Section of the Mathematical Association of America on Mar. 20-21. C. V. Aucoin (Prof and Dean of the College of Physical and Mathematical Sciences) and Tullio J. Pignani (Prof), retiring Chairman of the Section and Chairman of the Department of Mathematics of East Carolina University, presided at the General Sessions. Two major addresses were delivered: "Hindsight and Optimal Control Theory," by Hans Sagan (N. C. State University at Raleigh), and "Combinatorial Designs and Geometric Constraints," by Andrew Sobczyk (Prof). Also, James W. Mettler of Penn State University presented an extensive report on the "CUPM Panel on Mathematics in Two-Year Colleges," and John Kenelly, (Prof and Hd) presented a sectional study on "Ph.D. Availabilities and the Four-Year Colleges." Total registration for the meeting was 297, including 79 non-members of the Association.

Sue K. Dunkle (Asst Prof) attended a National Science Foundation Institute in Linear Algebra and Topology at Vanderbilt University from June 8 to July 17.

James A. Reneke (Asst Prof) was one of the twenty-four participants in the 1970 NSF Summer Institute for College Faculty on "Calculus and the Computer" held at Florida State University from June 22 to August 14.

Donald R. LaTorre (Asst Prof) participated in an international symposium on the topic "Semigroups and the Multiplicative Structure of Rings," sponsored by the University of Puerto Rico in Mayaguez, Puerto Rico, Mar. 9-13.

Joel V. Brawley, Jr. (Assoc Prof) representing the Mathematical Association of America and Clemson University, lectured on the campus of Ferris State College in Big Rapids, Mich. Apr. 6-7, the lecture topics were "Can You Count?" and "Elementary Algebraic Cryptography."

Alan S. Cover (Asst Prof) attended a Symposium in Applications of Several Complex Variables in Analysis sponsored by the University of Utah, Salt Lake City, Utah, Mar. 30 - Apr. 3.

John Kenelly (Prof and Hd) gave an address on Apr. 8 at the Western Carolinas Junior College Consortium held at Brevard College, Brevard, N. C.

Joel V. Brawley, Jr. (Assoc Prof) and John Kenelly (Prof and Hd) attended a Committee on Undergraduate Programs in Mathematics invitational conference in Memphis, Tenn. on Apr. 17-18 on Graduate Program recommendations.

K. T. Wallenius (Assoc Prof) visited Morris College, Sumter, S. C., on Apr. 28 and presented a talk on "How to Lie with Statistics." He visited Valdosta State College, Valdosta, Ga., on Apr. 30 - May 1 and presented two talks on "Coherency in Decision Making" and "Competitive Models of Survival." These visits were sponsored by the National Science Foundation through the auspices of the Visiting Lecturer Program of the Institute of Mathematical Statistics.

MECHANICAL ENGINEERING

C. A. Brandon (Assoc Prof) and T. T. Yang (Prof) participated in the Sixth Southeastern Thermal Science Seminar at Raleigh, N. C. Apr. 13-14. During the open forum session of the seminar Dr. Brandon described the work being done at Clemson on "The Interaction of Solid Particles and Fluids in Turbulent Pipe Flow," and Dr. Yang described work being done on an "Analytical Method of Design of Short Diffusers."

C. A. Brandon (Assoc Prof) will attend the 4th International Heat Transfer Conference in Paris, France, Aug. 31 - Sept. 4, where a paper co-authored by Dr. Brandon and Dr. D. G. Thomas of the Oak Ridge National Laboratory, "Transport Characteristics of Suspensions Pt. X. Effect of Particle Diameter and Fluid Velocity on the Interaction of Particles with Fluid Near a Wall," will be presented.

C. A. Brandon (Assoc Prof) and A. C. Elrod (Assoc Prof) carried out a "Flow Distribution Study in Industrial Heaters," for the Gaston County Dying Machine Company of Stanley, N. C. The study was carried out from June 1 to Aug. 15.

MICROBIOLOGY SECTION

M. J. B. Paynter (Asst Prof), Ann W. Baxter (Asst Prof), J. H. Bond (Assoc Prof) and R. K. Guthrie (Dir, Biology Division) attended the spring meeting of the S. C. Branch of the American Society for Microbiology, held in Charleston, on Apr. 10-11.

The following papers were presented by Microbiology faculty and graduate students: Interaction of Erwinia caratovora and Ioxynil, a Herbicide, by F. Breazeale (Grad stu) and N. D. Camper (Asst Prof). Microbiology of Organic Detritus in a Fresh Water Lake, by L. W. Blakely (Grad stu), A. R. Abernathy (Assoc Prof) and M. J. B. Paynter (Chm). Ecology of Heterotrophic Aerobic Bacteria in a Lake Sediment, by W. S. Brewer (Grad stu), A. R. Abernathy (Assoc Prof) and M. J. B. Paynter (Chm). Sporulation of Clostridium perfringens Type A in Vacuum-Sealed Meats, by F. M. Dework (Grad stu) and L. E. Vereen (Asst Prof). Effects of Concentrations of Pentose and Arginine on Growth and Autolysis of Streptococcus faecalis F24, by Ann W. Baxter (Asst Prof). An Ecological Study of the Bacteriophage Component of Activated Sludge, by M. J. B. Paynter (Chm) and D. L. Ewert (Grad stu). R. K. Guthrie (Dir, Biology Division) chaired one of the Scientific Sessions.

MICROBIOLOGY SECTION (Continued)

At this meeting the recently formed "Clemson Undergraduate Microbiology Club" was officially recognized by the S. C. Branch of the American Society for Microbiology as the "Clemson Student Chapter of the S. C. Branch of the American Society for Microbiology." This is the first undergraduate society in the nation to be recognized in this way.

MUSIC

Mrs. Edith B. Card (Instr) had an article, "Singin' Billy Walker," published in the July issue of Sandlapper.

PHYSICS

M. J. Skove (Prof) was co-author with B. E. Powell (former Grad stu) of a paper entitled "Nonlinearities in the Stress-Strain Relations for Tin Filamentary Crystals" which was presented at the meeting of the American Physical Society in Dallas, Texas, Mar. 23-26.

J. A. Gilreath (Asst Prof) judged the Central Savannah River Area Science Fair in Augusta, Ga. on Apr. 2.

J. A. Gilreath (Asst Prof) has been granted a Research Participation Fellowship from the Oak Ridge Associated Universities.

SOCIAL SCIENCES

B. C. Caffrey (Asst Prof), S. N. Cole (Asst Prof) and W. B. Turpin (Asst Prof) attended the meetings of the Southeastern Psychological Association in Louisville, Ky., Apr. 24-26. Prof Caffrey presented two papers at the meetings: "Social Conservatism and Attitudes Toward War and Negroes in White Southern College Students" and with W. C. Capel (Asst Prof) "Social Attitude Patterns of Personal Bankrupts and Poor Credit Risks." He has recently published an article: "A Multivariate Analysis of Sociopsychological Factors in Monks with Myocardial Infarction," in the American Journal of Public Health (Mar. 1970). Prof Cole was chairman of a session on student papers presented at the meetings of the S. C. Academy of Science, Columbia, Apr. 26.

W. C. Capel (Asst Prof) and W. A. Bloom, Tulane Medical School, presented "The Adaptive Deviant: Changing Epidemiology of Heroin Addiction in Metropolitan New Orleans," at the Governor's conference on Drug Addiction, Miami, Fla. in Mar.

C. W. Bolen (Prof), E. M. Lander (Alumni Prof), Mrs. P. K. Hill (Asst Prof) and R. S. Lambert (Prof and Hd) attended the annual meeting of the S. C. Historical Association in Charleston, Apr. 24-25. Prof Bolen was elected to the Executive Council of the Association.

VOCATIONAL EDUCATION MEDIA CENTER

Robert T. Benson (Asst Prof) while attending the Southern Agricultural Education Conference in Raleigh, Apr. 6-9 was elected Vice-President of the Subject Matter Specialist Section and Secretary for the Agricultural Mechanics Education Section of the Southern Region Agricultural Education Association. He also presented a paper "Instructional Materials Development in the Areas of Special Needs and the Disadvantaged," and has been appointed to the Safety Committee for Agricultural Education Division of the American Vocational Association for the 1970-71 year. Arthur K. Jensen (Dir) chaired the materials section of the conference.

Arthur K. Jensen (Dir), Verner Burkett (Asst Prof) and Betty Watkins (Asst Prof) participated in the Division of Audio-Visual Instruction Conference in Detroit Apr. 27 - May 1.

GIFTS AND GRANTS

The Department of Entomology and Economic Zoology has been given a Grant-in-Aid in the amount of \$1,000 for use in research on peaches, pecan and apple insects with Chipman Chemicals Division of Rhodia, Inc.

The Department of Entomology and Economic Zoology has been given a Grant-in-Aid in the amount of \$22,500 to cover a two-year period for use in research on the biology and ecology of black fly vectors of leucocytozoon disease of turkeys by the Campbell Institute for Agricultural Research.

The Department of Entomology and Economic Zoology has been given a Grant-in-Aid in the amount of \$800 for small plot and cage tests to determine the relative effectiveness of methyl parathian, toxaphene plus methyl parathian, and toxaphene for control of boll weevils, bollworms and other insects on cotton by Hercules, Inc. This work is to be done at the Pee Dee Station under the supervision of Dr. H. M. Taft.

The South Carolina Soybean Board has given a Grant-in-Aid in the amount of \$3,500 for research on soybean insect parasites and predators to the Department of Entomology and Economic Zoology. The work on this grant will be done at the Edisto Station under the supervision of Dr. S. G. Turnipseed and will be used to support one graduate student.

The Department of Mathematics has been awarded a Grant from the National Science Foundation for the fiscal year 1970-71 for the support of an "In-Service Institute in Mathematics for Secondary School Teachers" under the direction of James L. Flatt (Assoc Prof).

Hercules, Inc. to Entomology and Economic Zoology \$500.00 for study of apple, pecan and peach insects.

Shell Chemical Company to Entomology and Economic Zoology \$2,250.00 to be divided between several areas of current research using Shell products.

GIFTS AND GRANTS (Continued)

Stauffer Chemical Company to Entomology and Economic Zoology \$500.00 for work on cotton insects at Pee Dee Station.

Union Carbide Corporation to Entomology and Economic Zoology \$750.00 for work on cotton insects at Pee Dee Station.

Chevron Chemical Company to Entomology and Economic Zoology \$200.00 for work on toxicity of chemicals to crayfish.

Union Carbide Corporation to Entomology and Economic Zoology \$500.00 for study of ornamental insects.

Kenya Pyrethrum Company to Entomology and Economic Zoology \$2,500.00 for study of control of deer flies/biting flies in recreational areas of the State.

Mobil Chemical Company to Entomology and Economic Zoology \$150.00 for study of soybean insects.

NEW TELEPHONE SYSTEM BEGINS AUG. 16

The University will switch over to a new CENTREX telephone system on Sunday, August 16. It will no longer have the old 654- prefix, but will have one of its own, 656. Southern Bell reports the new system will feature inward dialing from local subscribers or from anywhere in the state or nation. This is possible because each telephone on the University system will have its own seven-digit number like any other telephone. It will not be necessary for incoming calls to go through the switchboard operator, but will ring the telephone direct.

The University has provided for the installation of about 1400 telephones to be placed in students' rooms in the dormitories. This provides the students with telephones which will be capable of performing like any other telephone.

According to Southern Bell, the cost of providing CENTREX to the University and Touch-Tone to the existing 654 office is \$881,000. In order to accomodate the equipment necessary for this service, the size of the Clemson Central Office was doubled.

NEW FACULTY AND STAFF 1970-71

The following members of the faculty and staff joined the University between August 16, 1969 and August 15, 1970.

College of Agriculture and Biological Sciences

Acton, James C. II, Assistant Professor of Food Science; Assoc. Arts, Middle Georgia College; B.S.A., Ph.D., University of Georgia; Married, one child; Apt. No. 4, Palmetto Blvd.

Barnett, Ortus Webb, Assistant Professor Plant Pathology and Physiology; B.S., M.S., University of Arkansas; Ph.D., University of Wisconsin; Married; 112 Clarendon Drive

Bellew, Mrs. Patricia A., Chemist, Agricultural Chemical Services; B.S., Lander College; Starr, S. C.

Berry, Mrs. Elizabeth B., Associate District Agent; B.S., Winthrop; 203 Oak Street

Carmack, Miss Veronica D., Assistant Extension Specialist in Home Management; B.S., University of Kentucky; M. S., University of Tennessee; 9-B Daniel Drive

Carner, Gerald R., Assistant Professor of Entomology and Economic Zoology; B.A., Asbury College; M.S., Ph.D., Auburn University; Married; 24-A Barre Street

Cely, Marvin Singleton, Jr., Coordinator, State Extension Management System; B.S., Clemson University; Married, two children; Route 4, Seneca, S. C.

Davis, Mrs. Rose Jones, Association Extension Specialist (Nutrition); B.S., M.S., Winthrop College; Matown Courts, #8, Parrott Street, Darlington, S. C.

Dillon, Charles Ronald, Instructor, Botany Section, Biology Division; A.B., M.A., University of North Carolina; Married, 2 children

Flowers, Randal Allen, Associate Specialist (Plant Pathology), Pee Dee Station, B.S., Western Kentucky State College; M.S., Ph.D., University of Kentucky, Married, two children; Florence, S. C.

Funchess, William H., Jr., Savannah Valley District Agent; B.S., M.S., Clemson University; Married, three children; 107 Brookwood Avenue

Gauthreaux, S. A., Jr., Assistant Professor, Zoology Section, Biology Division; B.S., M.S., Ph.D., Louisiana State University; Married, two children

Golden, W. I., Associate Professor and Principal Extension Specialist in Agricultural Economics; B.S., M.S., University of Georgia; Ph.D., Texas A&M University; Married, two children; 112 Keowee Trail

Gramling, George E., Associate Extension Specialist in Dairy Science; B.S., M.S., Ph.D., University of Wisconsin; Married, three children; 118 College Heights Blvd.

Guthrie, R. K., Director, Division of Biology; B.A., M.A., University of Texas; Ph.D., Baylor University; Married, two children; 202 Wren Street

NEW FACULTY AND STAFF Continued

Holahan, Miss Ursula A., Extension Specialist in Clothing; B.S., Cornell University; M.S., University of Minnesota; Concord Apartments B-6, Anderson, S. C.

Ingram, Byron Ross, Instructor, Division of Biology, Botany Section; A.B., University of North Carolina; Single

Johnson, Albert W., Assistant Professor of Entomology and Economic Zoology, (Tobacco Entomologist, Pee Dee Experiment Station); B.S., M.S., Clemson University; Ph.D., Auburn University; Married, two children; Florence, S. C.

Johnson, Charles Robert, Assistant Professor Horticulture; B.S., Colorado State University; Ph.D., Oregon State University; Married, one child; 32-A Bradley Street

Ledeboer, Frederick Bernhard, Assistant Professor Horticulture, B.S., Oregon State University; M.S., Ph.D., University of Rhode Island; Married, three children; 100 Broad Street

LeMaster, Miss Nancy J., Chemist I, Agricultural Chemical Services; B.S., Limestone College; 112 Calhoun Street

Liebenrood, George Harold, Pee Dee District Agent; B.S., Clemson University; M.Ed., Colorado State University; Married, four children; 225 North Clemson Avenue

Long, Thomas McPherson, Jr., Extension Assistant (Marketing); B.S., M.S., Auburn University; Married; Route 2, Box 174, Seneca, S. C.

Loyacano, Harold A., Jr., Assistant Professor of Entomology and Economic Zoology; B.S., Tulane University; M.S., Louisiana State University; Ph.D., Auburn University; Married, two children; 38-A Daniel Drive

Loyd, Max Ira, Associate Extension Specialist in Marketing; B.S., M.S., Ph.D., North Carolina State University; Married, two children; 108 Clarendon Drive

McAlhany, John W., Extension Service Assistant in Marketing; B.A., Furman University; M.S., Clemson University; Married, two children; Westminster Drive, Pendleton, S.C.

McConnell, James C., Jr., Assistant Professor of Animal Science; B.S., Ph.D., University of Tennessee; Married, one child; 34-A Daniel Drive

McDonald, James E., Imported Fire Ant Eradication Program (Plant Pest Regulatory Service), B. S., Cornell University; Married

Mizelle, William O., Jr., Extension Service Assistant in Agricultural Economics; B.S., M.S., North Carolina State University; Married; 7-C Daniel Drive

Noblet, Raymond, Assistant Professor of Entomology and Economic Zoology; B.S., M.S., Ph.D., University of Georgia; Single; Skelton Trailer Court; Highway 93, Clemson

Palmer, James Howell, Associate Extension Specialist in Agronomy; B.S., Clemson University; M.S., University of Georgia; Ph.D., Clemson University; Married; 146 Folger Street

NEW FACULTY AND STAFF ContinuedCollege of Engineering

Baron, William, Associate Professor of Civil Engineering; B.S.C.E., College of the City of New York; M.S.C.E., Ph.D., Purdue University; Married, three children; 110 Ashley Drive

Clark, J. Edwin, Associate Professor of Civil Engineering; B.S., M.S., University of South Carolina; Ph.D., North Carolina State University; Married, three children; 15-B Daniel Drive

Edge, Billy L., Assistant Professor of Civil Engineering; B.S., M.S., Virginia Polytechnic Institute; Ph.D., Georgia Institute of Technology; Married, two children; 115 Pleasant View Drive

Glennon, James M., Jr., Sanitary Engineer, Environmental Systems Engineering; B.S.C.E., M.S., Virginia Polytechnic Institute; Single, 109-A Dove Circle

Graham, Fred G., Administrative Assistant; B.S., University of South Carolina; Married, two children; 510 Don Drive, Greenville

Hester, Jarrett Charles, Associate Professor of Mechanical Engineering; B.S., University of Texas-Arlington; M.S., Ph.D., Oklahoma State University; Married, three children; Brookwood Drive

Lemons, Jack E., Assistant Professor of Materials Engineering, B.S., M.S., Ph.D., University of Florida; Married, one child, Dogwood Heights

Malstrom, Carl W., Instructor; Real-Time Computing; Electrical Engineering; B.S., University of Chattanooga; Married, three children; Lawrence Road

Moore, Ronald R., Assistant Professor of Biomedical Engineering; B.S., Clemson University; D.M.D., University of Kentucky College of Dentistry; Married; Bounty Land, Seneca

Sauer, Barry W., Assistant Professor of Biomedical Engineering; D.V.M., University of Georgia; Ph.D., Colorado State University; Married, one child; 5-B Lee Street

College of Forest and Recreation Resources

Broadbooks, John A., Lecturer, Recreation and Parks Administration, B. Arch., Rensselaer Polytechnic Inst.; M.La., University of Georgia; Married, one child; 95 Hillcrest Avenue

The Robert Muldrow Cooper Library

Bragg, Mrs. Mary Emerson, Cataloger, B.A., Cornell University; B.L.S., Columbia University; Route #5, Seneca, S. C.

Stephenson, Mrs. Martha S., Cataloger, B.A., University of Florida; M.L., Emory University, 29-B Martin Street

NEW FACULTY AND STAFF Continued

Shively, J. M., Associate Professor and Chairman Biochemistry Section, Biology Division; B.S., M.S., Ph.D., Purdue University; Married, two children

Smith, Larry Julian, Extension Service Research Assistant; B.S., M.S., Clemson University; Married, two children; 617 Bailey Street, Pendleton, S. C.

Umphlett, Clyde J., Associate Professor and Chairman Botany Section, Biology Division; B.S., M.S., Virginia Polytechnic Institute; Ph.D., University of North Carolina; Married, two children

Zehr, Eldon Irvin, Assistant Professor of Plant Pathology and Physiology; B. A., Goshen College; M.S., Ph.D., Cornell University; Married, three children; Sandy Springs, S. C.

College of Architecture

Clark, Matthew Aitken, Visiting Associate Professor of Architecture, Department of Design Studies; A.R.I.B.A. - Cambridge College of Art (England); Arch. D. - University of Leicester (England), Grad. Dipl. (Town Planning) - Architectural Association (London, England); M.Phil in Economics (Pending, University of London, England); Married, two children

Cetto, Max Ludwig, Visiting Professor of Architecture, Department of Design Studies; Arch D. - Technische Hochschule Munich (Germany); Ing D. - Technische Universitat, Berlin (Germany); Fellow Colegio de Arquitectos de Mexico; Married, two children

Mooney, Kempton Frank, Assistant Professor in Architecture; Department of Design Studies; B. Arch, Clemson University; (National Architectural Thesis Prize); M. Arch, Yale University; Single

College of Education

Blackwell, Paul, Assistant Professor of Military Science; B.S., M.S., Clemson University; Married, one child

Brock, Alton C., Assistant Professor of Aerospace Studies; B.S., Piedmont College; M.S., Air Force Institute of Technology; Married, two children; Kings Way, Camelot

Carpenter, Teryle W., Instructor; B.S., University of Oklahoma; M.Ed., Clemson University; Married, two children; 213 Strawberry Lane

Hubbard, Hershell R., Assistant Professor of Aerospace Studies; B.S., University of Arizona; M.S., University of Oklahoma; Married, three children; 214 Holly Avenue

Mahaffee, Joseph W., Assistant Professor of Military Science; B.S., Clemson University; Command General Staff College, Ft. Leavenworth, Kansas; Married, five children; Normandy Shores, RR #1, Seneca, S. C.

Pate, D. Henry, Assistant Professor of Industrial Education; B.S., Clemson University; M. In Ed., Clemson University; Ed.D., North Carolina State University; Married, one child; North Lake Estates, Seneca, S. C.

NEW FACULTY AND STAFF Continued

Kirsch, Miss Marguerite Ann, Instructor in French; A.B., St. Mary's Dominican College; M.A., Louisiana State University

LeBourgeois, John Young, Instructor in History; B.A., Yale University; M.A., Tulane University; Married, two children

Pharr, Walter Morgan, Jr., Instructor in Philosophy; B.A., Mercer University; M.A., University of Virginia; Single

Pippin, Ronald Newton, Instructor in Sociology; B.A., Louisiana College; M.A., Stephen F. Austin State University; Married, one child

Pippin, William Leon, Jr., Instructor in History; B.A., Tulane University; M.A., Wake Forest University; Married

Rent, George Seymour, Assistant Professor of Sociology; B.A., Marietta College; M.A., University of Delaware; Ph.D., Florida State University; Married, one child; 39-B Daniel Drive

Sargent, James Edward, Instructor in History; B.S., Eastern Michigan University; M.A., Michigan State University; Married

Sargent, Mrs. Janice Louise, Instructor in Speech; B.M., Eastern Michigan University; M.A., Michigan State University

Smith, Donald Hugh, Instructor in Sociology; B.A., M.A., California State College at Long Beach; Married, two children

Titus, Thomas George, Instructor in Psychology; B.A., State University of New York; M.A., University of Louisville; Single

Trask, David Stephen, Instructor in History; B.A., University of the South; M.A., University of Nebraska; Married

Underwood, Richard Allan, Assistant Professor of English; B.A., M.A., Ph.D., University of Michigan; Married, one child

Verich, Thomas Michael, Instructor in History; B.A., Lawrence University; M.A., Duke University; Single

Winston, Edmund Walter, II, Instructor in Music; B.M.E., M.A., Louisiana State University; Married, one child; 106 Allee Street

Public Relations

Cornwell, J. Ross, Associate Editor, News Bureau, Public Relations Department; B.A., Davidson College; M.A., Stanford University; Married; 500-A Skyview Drive

NEW FACULTY AND STAFF ContinuedCollege of Industrial Management and Textile Science

Barron, Mrs. Rhelda W., Assistant Professor of Accounting, B.S., M.B.A., Mississippi State University; Married, three children

Hebert, Robert F., Assistant Professor of Economics; B.S., M.S., Ph.D., Louisiana State University; Married, one child

Plylar, Wayne D., Instructor of Economics; B.A., University of Alabama; M.A., Mississippi State University; Married

Roberts, Carleton W., Associate Professor of Textile Chemistry; B.A., New York University; M.S., Polytechnic Institute of Brooklyn; Ph.D., Polytechnic Institute of Brooklyn; Married, three children

Ruhle, Richard D., Jr., Visiting Lecturer in Industrial Management; B.A., Washington and Lee University; J.D., Washington and Lee University; Single

Smith, Chester R., Associate Professor of Industrial Management; B.S., University of Alabama; M.A., University of Virginia; Ph.D., University of Virginia; Married, three children

Swanson, David M., Assistant Professor of Industrial Management; B.S., University of N. C.; M.A., University of Chicago; Single

White, Bruce M., Instructor in Accounting; B.S., Clemson University; M.S., Clemson University; Single

Zant, Robert F., Assistant Professor of Industrial Management; B.A., University of Florida; M.A., University of Florida; Married, two children

Zipin, Paul M., Assistant Professor of Economics; B.A., Temple University; M.A., Penn State University; Married, 5-A Lee Street

College of Liberal Arts

Adams, Mrs. Mary Smith, Instructor in English; B.A., M.A., Washington State University

Albert, Harold Edward, Assistant Professor of Political Science; B.S., Madison College; B.D., United Theological Sem; M.A.T., Miami University (Ohio); Married, three children; 115-A Dove Circle

Barton, Robert F., Instructor in Speech; B.A., Western Michigan University; M.A., Bowling Green State University; Married

Calvez, Daniel Jean, Instructor in French; Licence es Letres; Married, one child

Joekel, Charles Murray, II, Instructor in History; B.A., University of Iowa; M.A., University of Missouri; Single

NEW FACULTY AND STAFF ContinuedSchool of Nursing

Cather, Miss Melba, Assistant Professor; B.S., University of Miami; M.A., University of Washington

Lukawecki, Mrs. Ann, Visiting Lecturer; B.S., Emory University; M.A., University of Chicago

Rockwell, Miss Susan, Instructor; B.S.N., Berea College; M.A., New York University

Roswal, Leon, Associate Professor and Director of the Associate Degree Program in Nursing; B.S., Adelphi College; M.A., Teachers College, Columbia University

Stokes, Mrs. Sara Turner, Instructor; B.S.N., Vanderbilt University; M.A., Texas Women's University

College of Physical and Mathematical Sciences

Boland, W. Robert, Assistant Professor of Mathematics; B.S., Davidson College; M.A., College of William and Mary; Ph.D., University of Colorado; Married, one child

Bowie, Patrick Carlton, Assistant Professor of Mathematics; B.S., Georgia Institute of Technology; M.S., Ph.D., Clemson University; Married, three children

Holmes, Paul Thayer, Associate Professor of Mathematics; B.S., M.A., Washington State College; Ph.D., Stanford University, Married, two children

Clemson University at Greenville

Goforth, Mrs. Myra, Instructor in Chemistry, Clemson University at Greenville; B.S., Winthrop College

Grimes, Mrs. Alberta T., Guidance Counselor, Clemson University at Greenville; B.S., Southern University; M.A., Columbia University

Clemson University at Sumter

Isman, Lloyd E., Part-time Instructor in Sociology; Clemson University at Sumter; B.A., Long Island University; M.S.W., Tulane University; Single; P. O. Box 1486, Sumter, S. C.

Rollings, Raymond S., Part-time Instructor in Engineering, Clemson University at Sumter; B.C.E., North Carolina State University, 1947; M.C.E., Rennselaer Polytechnic Institute, 1950; M.Ed. (Engineering), Pennsylvania State University, 1966; Married; two children; 2195 Tanglewood Road, Sumter, S. C.

NEW FACULTY AND STAFF ContinuedBusiness and Financial Affairs

Boyer, Daniel Jerry, Superintendent of Planning and Engineering, Physical Plant; B.S., B. of Architecture, University of Houston; M. of Architecture, Texas A & M; Married, two children, 30-F Martin Street

Student Affairs

Arp, Jerry Wayne, Asst. Sports Information Director, Athletic Department; Furman University; University of South Carolina; Married

Barfield, Douglas Newton; Assistant Football Coach, Athletic Department; B.S., University Southern Mississippi; Married

Clendinen, William Stewart, Assistant Basketball Coach, Athletic Department; B.S., Florida State; Married

Campbell, Miss Cathy Anne, Assistant Dean of Women; Student Affairs; B.A., Auburn University

Duncan, Mrs. Theo, Head Resident, Student Affairs; B.A., Columbia College

Hill, George Ellis, Jr., Assistant Basketball Coach, Athletic Department; B. S., Auburn University; Married

Ingram, Cecil Wayne, Head Football Coach, Athletic Department; B.S., M.A., University of Alabama; Married

Locke, Taylor Osborne, Head Basketball Coach, Athletic Department; B.S., Ohio Wesleyan University; Married

MacIntyre, George Wallace, Assistant Football Coach, Athletic Department; B.S., University of Miami; Married

Malpass, William Clifton, Freshman Basketball Coach, Athletic Department; B.S., M. Carson Newman, Furman; Married

Owen, Phillip Elias, Freshman Football Coach, Athletic Department; B.S., Georgetown College; Married

Richardson, Burrell, Residence Supervisor, Residence Halls Office; B.A., Newberry College, M.S., Clemson University; Married

Richardson, Mrs. Mary, Head Resident, Student Affairs

Robinson, Robert W., Jr., Residence Supervisor, Residence Halls Office; B.S., Furman University; Single

Shively, Douglas Armstead, Assistant Football Coach, Athletic Department; B.S., University of Kentucky; Married

CALENDAR OF CAMPUS EVENTS

Through Aug.	28	Fri.		Sponsored by the Clemson Architectural Foundation- Springs 11th Annual Travelling Art Show: Painting and Sculpture Show -- Juried by William Agee, Assoc. Curator, Museum of Modern Art - Rudolph Lee Gallery.
Aug.	13	Thurs.		Football teams report to campus.
Aug.	14	Fri.		Faculty orientation.
Aug.	14	Fri.		Football team physicals and photographs.
Aug.	15	Sat.		Faculty orientation.
Aug.	15	Sat.		Fall football practice begins.
Aug.	17	Mon.		New student orientation.
Aug.	17	Mon.	10:30 a.m.	General faculty-staff meeting, Tillman Hall.
Aug.	18	Tues.		New student orientation.
Aug.	19	Wed.	6:00 p.m.	Freshmen's Picnic at President's Home.
Aug.	19	Wed.		Registration - all students.
Aug.	20	Thurs.		Late registration.
Aug.	21	Fri.		Classes begin on regular schedule.
Aug.	27	Thurs.	8:00 p.m.- 9:30 p.m.	New faculty-staff reception, President's home.
Aug.	28	Fri.		Sponsored by the Clemson Architectural Foundation -
Sept.	17	Thurs.		The Dillard Collection -- Art on Paper: Multi-Media -- Selection by Weatherspoon Gallery - Rudolph Lee Gallery.
Aug.	29	Sat.		CDA Mixer Dance.
Sept.	3	Thurs.	3:45 p.m.	Women's Club reception for Newcomers, Clemson House.
Sept.	10	Thurs.		Fall General Meeting of Ft. Hill-Clemson Alumni Club on Lake Hartwell at Wilson's Landing in Clemson.
Sept.	11	Fri.		CDA Rat Hop.
Sept.	12	Sat.	1:30 p.m.	Football - Citadel at Clemson.
Sept.	12	Sat.		CDA Concert - Coliseum.
Sept.	15	Tues.		Freshman Elections.
Sept.	19	Sat.	1:30 p.m.	Football - Virginia at Clemson (Band Day).

CALENDAR OF CAMPUS EVENTS Continued

Sept.	19-	Sat.-			Sponsored by the Clemson Architectural Foundation -
Oct.	14	Wed.			Georgian Country Houses: From the Collection of the
					Royal Institute of British Architects - Rudolph
					Lee Gallery.
Sept.	25	Fri.			Soccer - Georgia State at Clemson.
Sept.	26	Sat.	2:00 p.m.		Football - Georgia at Athens.
Sept.	26	Sat.			Cross Country - Stone Mountain Invitational.
Sept.	29	Tues.	3:00 p.m.		Soccer - at Western Carolina University.
Oct.	2	Fri.	2:00 p.m.		Freshman Football - Georgia at Athens.
Oct.	3	Sat.	2:00 p.m.		Football - Georgia Tech at Atlanta.
Oct.	3	Sat.			Cross Country - Georgia Tech
Oct.	3	Sat.			Soccer at the Citadel.
Oct.	5	Mon.			Cross Country - at Furman.
Oct.	8	Thurs.	7:30 p.m.		Freshman Football - South Carolina at Columbia
Oct.	9	Fri.			Alumni National Council - Clemson Foundation meets.
Oct.	9	Fri.			Tigerama - Football Stadium.
Oct.	9	Fri.			Homecoming Dance.
Oct.	9	Fri.			Soccer - at Emory Invitational (2 days).
Oct.	10	Sat.	1:30 p.m.		Football - Auburn at Clemson (Homecoming).
Oct.	10-	Sat.-			Sponsored by the Clemson Architectural Foundation -
Oct.	31	Sat.			The Five Winston-Salem Printmakers -- Rudolph Lee
					Gallery.
Oct.	10	Sat.			CDA Concert - Coliseum.
Oct.	10	Sat.			Cross Country - USC, Duke at Durham.
Oct.	12	Mon.			Cross Country - at NC State.
Oct.	14	Wed.			Ciro and his Ballet Flarrenceo.
Oct.	15	Thurs.	8:00 p.m.		Clemson Players - Daniel Hall Theatre.
Oct.	15	Thurs.			IM/TS Seminar Speaker, Mr. Ted Johnson, Director
					of Economic Research, Florida Power & Light Co.,
					Miami, Florida.

CALENDAR OF CAMPUS EVENTS Continued

Oct.	16	Fri.	2:00 p.m.	Freshman Football - Duke at Clemson.
Oct.	16	Fri.	8:00 p.m.	Clemson Players - Daniel Hall Theatre.
Oct.	16	Fri.	3:00 p.m.	Soccer - University of North Carolina.
Oct.	17	Sat.	2:00 p.m.	Football - Wake Forest at Winston-Salem.
Oct.	17-	Sat.-		Sponsored by the Clemson Architectural Foundation -
Nov.	9	Mon.		Pickens County Artist: Tricentennial Tour Exhibit -- Reception for artists - Lee Gallery.
Oct.	17	Sat.	8:00 p.m.	Clemson Players - Daniel Hall Theatre.
Oct.	17	Sat.		Cross Country - U.N.C., Wake Forest at Chapel Hill.
Oct.	17	Sat.		Basketball Clinic.
Oct.	19	Mon.		Melbourne Symphony Orchestra Concert - Littlejohn Coliseum.
Oct.	23	Fri.	8:00 p.m.	Freshman Football - Georgia Tech at Savannah.
Oct.	23	Fri.		CDA Autumn Dance.
Oct.	24	Sat.	1:30 p.m.	Football - Duke at Clemson (IPTAY Day).
Oct.	24	Sat.		Annual Meeting of Sirrine Foundation Trustees.
Oct.	24	Sat.		Meeting at Clemson of Southern Textile Association.
Oct.	24	Sat.		CDA Concert - Coliseum.
Oct.	24	Sat.	10:30 a.m.	Soccer - Maryland.
Oct.	25	Sun.		CDA Concert - Coliseum.
Oct.	30	Fri.	2:00 p.m.	Freshman Football - Wake Forest at Clemson.
Oct.	31	Sat.	2:00 p.m.	Football - Maryland at College Park.
Oct.	31-	Sat.		Sponsored by the Clemson Architectural Foundation -
Nov.	22	Sun.		Alvar Aalto-Architect: Architectural Design -- Lee Gallery.
Oct.	31	Sat.		Cross Country - at District II Meet, Atlanta.
Nov.	1	Sun.		Little Theatre - Food Industries Theatre, "Lion in Winter" -- Tricentennial special production.
Nov.	1	Sun.	2:00 p.m.	Soccer - Virginia.

CALENDAR OF CAMPUS EVENTS Continued

Nov.	2-	Mon.	8:00 p.m.	Little Theatre - Food Industries Theatre -
Nov.	7	Sat.		"Lion in Winter."
Nov.	3	Tues.		Election Day.
Nov.	5-	Thurs.-		Sixth Annual Meeting of Southern Chapter of The
Nov.	6	Fri.		Institute of Management Science (TIMS) at Clemson
				House.
Nov.	7	Sat.	7:30 p.m.	Football - Florida State at Tallahassee.
Nov.	7	Sat.	2:00 p.m.	Soccer - North Carolina State
Nov.	9	Mon.		Cross Country ACC Meet at Chapel Hill.
Nov.	10	Tues.		Soccer - at Furman.
Nov.	11	Wed.		Last day to drop a subject; last day to withdraw
				without recorded grades.
Nov.	13	Fri.		Sponsored by the Clemson Architectural Foundation
				London Grafica Arts Print Show: One Day Only -
				Sales Exhibition -- Rudolph Lee Gallery.
Nov.	14	Sat.	1:30 p.m.	Football - North Carolina at Clemson (Parent's Day
Nov.	14-	Sat.-		Sponsored by the Clemson Architectural Foundation
Dec.	6	Sun.		New Work - New York: Non Figurative Painting,
				American Federation of Arts --- Rudolph Lee
				Gallery.
Nov.	14	Sat.	10:30 a.m.	Soccer - Emory.
Nov.	15-	Sun.-		Board of Visitors.
Nov.	17	Tues.		
Nov.	20	Fri.		Coldstream Guards & Black Watch -- Littlejohn Coliseum
Nov.	20	Fri.		CDA Carolina Dance.
Nov.	21	Sat.	1:30 p.m.	Football - South Carolina at Clemson.
Nov.	21	Sat.		CDA Concert - Coliseum.
Nov.	23	Mon.		Cross Country - NCAA Meet at William & Mary.
Nov.	24	Tues.		Fall Business Meeting of Ft. Hill-Clemson Alumni
				Club at Clemson House.
Nov.	25	Wed.		Thanksgiving holidays begin after last class.

CALENDAR OF CAMPUS EVENTS Continued

Nov.	26	Thurs.		Thanksgiving Day.
Nov.	30	Mon.		Classes resume.
Dec.	1	Tues.		Clemson Choir - Daniel High School Auditorium.
Dec.	3	Thurs.		Basketball - Furman at Clemson.
Dec.	5	Sat.		Basketball - Mercer at Clemson.
Dec.	5	Sat.		Freshman Basketball - vs Anderson.
Dec.	5-	Sat.-	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
Dec.	6	Sun.		
Dec.	7	Mon.		Exams begin.
Dec.	11-	Fri.-		Sponsored by the Clemson Architectural Foundation -
Jan.	10	Sun.		Staging the Visual-- College of Architecture:
				Exhibition of Student Work - Rudolph Lee Gallery.
Dec.	12-	Sat.	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
Dec.	13	Sun.		
Dec.	17	Thurs.		Mid-year graduation.
Dec.	17	Thurs.		Joint Army/Air Force Commissioning Ceremonies.
Dec.	18-	Fri.-		Basketball - Vanderbilt Tournament (SMU, Vanderbilt,
Dec.	19	Sat.		St. Johns, Clemson).
Dec.	25	Fri.		Christmas Day.
Jan.	1	Fri.		New Year's Day.
Jan.	2	Sat.		Basketball - South Carolina at Columbia (freshmen & varsity).
Jan.	4	Mon.		New student orientation.
Jan.	5	Tues.		Registration all students.
Jan.	6	Wed.		Basketball - Georgia Tech at Atlanta (freshmen & varsity).
Jan.	9	Sat.		Basketball - Virginia at Virginia
Jan.	9	Sat.		Basketball - Freshmen at Davidson.
Jan.	11	Mon.		Basketball - Maryland at Maryland.
Jan.	12-	Tues.-		Sponsored by the Clemson Architectural Foundation -
Feb.	7	Sun.		Six South Carolina Painters: Invited by Rudolph Lee Gallery.

CALENDAR OF CAMPUS EVENTS Continued

Jan.	14	Thurs.	Basketball - North Carolina at North Carolina.
Jan.	16	Sat.	Basketball - Duke at Clemson.
Jan.	16	Sat.	Basketball - Freshmen vs campus all stars.
Jan.	18	Mon.	Basketball - N.C. State at Clemson (varsity & freshmen).
Jan.	20	Wed.	Basketball - Georgia Tech at Clemson (varsity & freshmen).
Jan.	21	Thurs.	The Dorian Woodwind Quintet & Morton Subotnick's "Misfortunes of Immortals" - Littlejohn Coliseum.
Jan.	23	Sat.	Basketball - V.P.I. at V.P.I.
Jan.	23	Sat.	Basketball - Freshmen at Georgia.
Jan.	25	Mon.	Basketball - Freshmen at Anderson.
Jan.	26	Tues.	The National Players will present Shakespeare's <u>Much Ado About Nothing</u> - Tillman Hall.
Jan.	28	Thurs.	Basketball - Virginia at Clemson
Jan.	28	Thurs.	Basketball - Freshmen vs U.N.C. of Charlotte.
Jan.	30	Sat.	Basketball - Indiana State at Clemson.
Jan.	30	Sat.	Basketball - Freshmen vs Gaston Jr. College.
Feb.	1	Mon.	Basketball - Furman at Furman (varsity & freshmen).
Feb.	4-	Thurs.-	8:00 p.m. Little Theatre - Food Industries Theatre.
Feb.	7	Sun.	
Feb.	6	Sat.	Basketball - South Carolina at Clemson (varsity & freshmen).
Feb.	8	Mon.	Basketball - Rollins at Clemson.
Feb.	8	Mon.	Basketball - Freshmen vs Davidson.
Feb.	9-	Tues.-	Sponsored by the Clemson Architectural Foundation - Design in the 70's: Outstanding Product - Designs Selected by Architecture Design Faculty - Rudolph Lee Gallery.
March	1	Mon.	
Feb.	10	Wed.	Leonard Pennario, Pianist, Littlejohn Coliseum.

CALENDAR OF CAMPUS EVENTS Continued

Feb.	11-	Thurs.-	8:00 p.m.	Clemson Players - Daniel Hall Theatre.
Feb.	13	Sat.		
Feb.	12-	Fri.-		Basketball - North/South Doubleheader at Charlotte --
Feb.	13	Sat.		N.C. State & University of North Carolina.
Feb.	13	Sat.		Basketball - Freshmen at UNC at Charlotte.
Feb.	15	Mon.		Basketball - at Wake Forest.
Feb.	20	Sat.		Basketball - V.P.I. at Clemson.
Feb.	20	Sat.		Basketball - Freshmen vs Georgia.
Feb.	23	Tues.		Basketball - Maryland at Clemson.
Feb.	23	Tues.		Basketball - Freshmen vs campus all stars.
Feb.	26	Fri.		Basketball - Wake Forest at Clemson.
Feb.	26	Fri.		Basketball - Freshmen vs campus all stars.
March				Army ROTC - Federal Inspection.
March				Army ROTC - Military Ball
March	2-	Tues.-		Sponsored by the Clemson Architectural Foundation -
March	24	Wed.		Elbridge Gordon -- One Man Show - Paintings --
				Rudolph Lee Gallery.
March	2	Tues.		Basketball - Duke at Duke.
March	3-	Wed.-	8:00 p.m.	Clemson Music Club - Food Industries Theatre.
March	6	Sat.		
March	5	Fri.		Annual Spring Banquet of Ft. Hill-Clemson Alumni Club at Clemson House.
March	6	Sat.		Baseball - Louisville at Clemson.
March	9	Tues.		Clemson Band Concert - Coliseum.
March	10	Wed.		Johann Strauss, Ensemble of the Vienna Symphony Orchestra - Littlejohn Coliseum.
March	11	Thurs.		ACC Basketball Tournament - Greensboro, N.C.
March	12	Fri.		Spring holidays begin after last class.
March	12	Fri.		ACC Basketball Semi-Finals at Greensboro, N.C.

CALENDAR OF CAMPUS EVENTS Continued

March	13	Sat.		ACC Basketball Finals - Greensboro, N.C.
March	15	Mon.		Baseball - at Mississippi.
March	16	Tues.		Baseball - at Mississippi.
March	17	Wed.		Baseball - at Mississippi.
March	18	Thurs.		Baseball - at Mississippi State.
March	19	Fri.		Baseball - at Mississippi State.
March	20	Sat.		Baseball - at Mississippi State.
March	22	Mon.		Classes resume.
March	23	Tues.		Clemson Area Continuing Education Classes.
March	23	Tues.		Clemson Choir - Daniel High School Auditorium.
March	24	Wed.		Baseball - Ohio at Clemson.
March	25-	Thurs.	8:00 p.m.	Clemson Players - Daniel Hall Theatre.
March	27	Sat.		
March	25	Thurs.		Baseball - Ohio at Clemson.
March	27-	Sat.-		Sponsored by the Clemson Architectural Foundation
April	25	Sun.		Photography and the City - City Planning --
				Organized by Charles & Ray Eames - Lee Gallery.
March	27	Sat.		Baseball - U.N.C. at Clemson.
March	28	Sun.		Baseball - N.C. State at Clemson.
March	30	Tues.		Clemson Area Continuing Education Classes.
April	1-	Thurs.-	8:00 p.m.	Little Theatre - Food Industries Theatre.
April	4	Sun.		
April	3	Sat.		Baseball - Wake Forest at Clemson.
April	4	Sun.		Baseball - Duke at Clemson.
April	6	Tues.		Clemson Area Continuing Education Classes.
April	7	Wed.		Army ROTC - Honors and Awards Day.
April	7	Wed.		Classes end at 12 noon.
April	7	Wed.		Baseball - at Georgia.

CALENDAR OF CAMPUS EVENTS Continued

April	10	Sat.		Baseball - at U.N.C.
April	11	Sun.		Easter.
April	11	Sun.		Baseball - at N.C. State.
April	12	Mon.		Clemson Week Around the World.
April	13	Tues.		Clemson Area Continuing Education Classes.
April	13	Tues.		Clemson Band Concert & Choir - Daniel High School Aud.
April	13	Tues.		Baseball - at Georgia Tech.
April	14	Wed.		Baseball - Georgia at Clemson.
April	17-	Sat.-	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
April	18	Sun.		
April	17	Sat.		Baseball - (2) Fla. State at Clemson.
April	18	Sun.		Baseball - Fla. State at Clemson.
April	20	Tues.		Clemson Area Continuing Education Classes.
April	21	Wed.		Baseball - Georgia Tech at Clemson.
April	23	Fri.		Baseball - U.S.C. at Clemson.
April	24-	Sat.-	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
April	25	Sun.		
April	26	Mon.		Exams begin.
April	27	Tues.		Clemson Area Continuing Education Classes.
May	1-	Sat.-		1971 Thesis Presentation - Sponsored by the Clemson
June		Sat.-		Architectural Foundation.
May	4	Tues.		Baseball - at U.S.C.
May	6	Thurs.		Baseball - Virginia at Clemson.
May	7	Fri.		Commencement -- Joint Army/Air Force Commissioning Ceremonies.
May	7	Fri.		Baseball - Virginia at Clemson.
May	8	Sat.		Baseball - Maryland at Clemson.
May	9	Sun.		Baseball - Maryland at Clemson.
May	11-	Tues.-		Fourth Annual Textile Marketing Forum sponsored by
May	13	Thurs.		College of IM/TS.

CALENDAR OF CAMPUS EVENTS Continued

May	12	Wed.	Baseball - at Duke.
May	13	Thurs.	Baseball - at Wake Forest.
May	14	Fri.	Baseball - at Va. Tech.
May	15	Sat.	Baseball - at Va. Tech.
May	16	Sun.	Baseball - at Va. Tech.
May	18	Tues.	Summer Session - Classes begin.
June	8-	Tues.-	FFA Convention - campus.
June	10	Thurs.	
June	11-	Fri.-	Alumni Reunions -- Alumni National Council, Clemson Foundation Meetings -- Clemson House.
June	13	Sun.	
June	12	Sat.	Alumni class meetings - General Assembly - Alumni Banquet.
June	13-	Sun.-	Tiger Basketball Camp - campus.
July	3	Sat.	
June	23-	Wed.	Exams.
June	24	Thurs.	
June	28	Mon.	Orientation - new students.
June	30	Wed.	Summer Session - Classes begin.
July	20-	Tues.-	State 4-H Convention - campus.
July	23	Fri.	
July	31	Sat.	Classes meet today.
Aug.	4-	Wed.-	Exams.
Aug.	5	Thurs.	
Aug.	7	Sat.	Graduation - Commissioning.
Aug.	16-	Mon.-	Orientation - new students.
Aug.	17	Tues.	

CLEMSON NEWSLETTER

SEP 1 1970

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 2

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

September 1, 1970

FACULTY SENATE ENDORSES POLICY ON CONDUCT

During their August meeting, the Faculty Senate endorsed and supported the "Policy Concerning Conduct of Students and Employees of Clemson University" as approved by the Board of Trustees, May 28, 1965. The Senate further resolved that copies of this policy should be distributed to all students, faculty, and employees. The policy has been circulated to all students and to parents of students.

The policy, in its entirety, follows: (Continued on page 2)



NEW JUNIOR HIGH HONORS PRESIDENT -- President Robert C. Edwards and Dr. Curtis Sidden, Superintendent of Pickens County Schools District A, discuss an architectural rendering of a new junior high school facility which has been named in honor of Dr. Edwards. The new educational facility for Pickens County District A will be located 6/10 of a mile southeast of Daniel High School and will be ready for occupancy by the fall of 1971. It will serve students in the Clemson, Central and Six Mile areas.

FACULTY SENATE ENDORSES POLICY ON CONDUCT Continued

The Board of Trustees is cognizant of the occurrences of disorders on some campuses of colleges and universities in which students, employees and persons not affiliated with the institution have participated. These disorders have been manifested by acts of violence, unlawful use and misappropriation of institutional, property and facilities, criminal acts and public acts which reflect adversely on the maintenance of discipline and on the good name and reputation of the institution its student body and faculty. Such conduct on the part of a small minority of the institutional family does irreparable damage to the learning processes and undermines public confidence in the effectiveness of the institution in its contribution to higher education. All of these or similar acts or disorders are specifically interdicted by the Board of Trustees.

The Board of Trustees recognizes there is a valid function performed by faculty and student body alike in considering and supporting any and all issues controversial or non-controversial within the framework of orderly, peaceful and lawful decorum, demeanor and processes. It is not intended in any way to discourage or trammel freedom of speech, including constructive criticism, expression of grievances or petition for redress or wrongs, real or fancied, so long as that right is exercised in a lawful and peaceful manner.

The Board of Trustees is charged by law with the responsibility of making rules and regulations for the University, and establishing policy governing the conduct of the University, its employees and student body. The President of the University is elected by the Board of Trustees to serve at its pleasure. He is the chief executive officer entrusted by the Board of Trustees with the execution of its policies and the internal government and administration of the University.

The Board of Trustees orders and directs the President of the University to administer and enforce its policies as herein announced. In carrying out this responsibility he is vested with authority to take such disciplinary action as in his judgment the circumstances warrant.

HANOVER HOUSE VISITING HOURS EXPANDED

Hanover House, a pre-revolutionary historic landmark located on campus, is open to the public on an expanded schedule. The House is open free to visitors Tuesday through Saturday of each week from 10 a.m. - 12 noon and from 1-5:30 p.m.; and on Sunday from 2-6 p.m. It is closed on Mondays. A National Park Service Registered Historic Landmark, Hanover House is a project of the Spartanburg Committee of the National Society of the Colonial Dames.

TILLMAN HALL GETS FACELIFTING

During the summer months Tillman Hall's clock tower was outfitted with the latest in roofing fashion, a lead-coated copper roof which will oxidize to a pewter-gray after several rains. Renovation also included a light sandblasting and waterproofing on all masonry, patching some brickwork, and a fresh coat of paint on cornices, clock faces and other exterior trim.

FOREIGN LANGUAGE FILM SERIES

Numerous award-winning films will be featured in the "Foreign Language Film Series." The films will be shown in Daniel Hall auditorium and admission is free. All movies have sound tracks in the language noted, with English subtitles.

September 14 8 p.m.
Monday

Der Zerbrochene Krug (German)
Based on the comedy by Heinrich von Kleist.

September 28 8 p.m.
Monday

Los Tarantos (Spanish) 1963
Spanish gypsy version of "Romeo and Juliet."

October 12 8 p.m.
Monday

The Duel (Russian) 1962
Based on the story by Anton Chekhov.

November 2 8 p.m.
Monday

Codine (French)
Grand prize - Cannes Film Festival.

November 16 8 p.m.
Monday

The Revenge of Don Mendo (Spanish) 1961
Parody of romantic drama based on the play by Munoz Seca.

November 23 8 p.m.
Monday

How not to Rob a Department Store (French) 1965
With Jean Claude Brioly and Albert Remy.

FORT HILL CLEMSON CLUB PRESENTS STAG NIGHT

The Fort Hill Clemson Club will sponsor a Stag Night for alumni, IPTAY, staff, faculty, and friends of the University on Thursday, September 10, at Wilson's Landing. Dinner begins at 7:00 p.m. and will consist of boiled shrimp and all the trimmings (all you can eat).

Tickets, \$2.75 each, are available at the Alumni Office in the Trustee House or the IPTAY Office in Fike Field House. A film covering the highlights of the 1969 Atlantic Coast Conference football season will be shown.

COMMUNICATIONS CENTER

Harry Durham (Dir) spoke at a College News Seminar in Boone, N.C. about "Handling Radio - TV News on Campus," Aug. 8, and presided over the executive committee meeting of the Mason - Dixon District of the American College Public Relations Association in Williamsburg, Va., Aug. 13-14.

Jim Burns (Mgr of Tech Services) attended the annual convention of the South Carolina Broadcasters Association in Charleston, July 13-14.

Tom Shockley (Cinematographer) attended an Industrial Film Workshop at the Winona School of Professional Photography in Winona, Ind., June 7-13.

Hal Smith (Photographer) attended a Photo-Journalism Workshop at the Winona School of Professional Photography in Winona, Ind., June 28-July 3.

ORGANIZATIONAL CHANGES WITHIN THE OFFICE OF STUDENT AFFAIRS

The following organizational changes of staff responsibilities have been made within the Division of Student Personnel:

Kenneth N. Vickery - Assistant Vice President for Student Affairs - In addition to his duties as Dean of Admissions and Registration, Dean Vickery has been made Assistant Vice President with full authority to act for the Vice President for Student Affairs.

George E. Coakley - Assistant Dean of Students - Dean Coakley's title has been changed from Dean of Men so that he may assume broader responsibilities with all students rather than deal specifically with male students.

Susan G. Delony - Assistant Dean of Students - Dean Delony's title has been changed from Dean of Women so that she may assume broader responsibilities with all students rather than deal specifically with women students.

William V. Bost - Assistant to the Vice President - Mr. Bost has been appointed to direct programs dealing with funded student organizations, space and service arrangements required for student organizations and special assignments for the Vice President for Student Affairs. He will continue to teach on a part-time basis.

Manning N. Lomax - Director of Residence Halls - Mr. Lomax has been promoted to direct the program of the Residence Halls Office and will be responsible for the administration of all University residence halls. Any student need concerning residence halls can now be met from this central office. It should be noted that family housing for the University will be continued under the administration of the Director of Auxiliary Enterprises.

Buford E. Trent - Director of University Union - Mr. Trent will assume responsibility of this program as the new facility is being planned. The YMCA will continue under his administration and will be an integral part of the University Union Program.

Frank A. Burtner - Director of Fraternity Affairs - Dr. Burtner has been named Director of Fraternity Affairs on a half-time basis. He will continue to teach and to serve as advisor to the Pre-Medical, Pre-Dental, Pre-Pharmacy and Medical Technology Students.

John C. Cureton - Manager of the University Book Store - The administration of the University Book Store has been moved from the Athletic Department and will report directly to the Vice President for Student Affairs.

F.D. Miller - Manager of University Canteens - The administration of the University Canteens has been moved from the Athletic Department and will report directly to the Vice President for Student Affairs. In addition to the canteen in Johnstone Hall, construction is underway to provide a similar food service in Lever Hall.

PRESIDENT'S HOME TELEPHONE NUMBER CHANGED

Dr. Edwards home telephone has been tied into the University's new Centrex system. The new number is 656-3213.

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 13, 1970

The Research Faculty Council convened in May with the following officers: Chairman, G. C. Kingsland; Vice-Chairman, A. S. Tombes; Secretary, M. W. Jutras.

Membership on the Council for the year 1969-70 consisted of the following representatives: College of Agriculture and Biological Sciences: W. H. McGregor, R. F. Borgman, J. R. Haun, J. J. Janzen, M. W. Jutras, J. W. Hubbard, A. S. Tombes, G. C. Kingsland. College of Physical and Mathematical Sciences: J. C. Fanning, H. W. Graben. College of Liberal Arts: E. M. Lander. College of Engineering: H. R. Bungay, W. B. Barlage, S. F. Hulbert. College of Industrial Management and Textile Science: J. L. Lundberg, R. H. Barker. College of Architecture: L. H. Brown.

The following committee assignments were made for the year: Policy: W. H. McGregor (Chairman), L. H. Brown, J. W. Hubbard, J. L. Lundberg. Personnel Relations: H. R. Bungay (Chairman), A. S. Tombes, S. F. Hulbert. Ad Hoc Committee on Research Manual and Manual for Faculty Members Revision: J. J. Janzen (Chairman), R. H. Barker, W. B. Barlage, J. C. Fanning.

Research Faculty Council representatives on University standing committees, subject to approval of the University Dean, are as follows: Faculty Basic Research - J. Haun; Patent - G. C. Kingsland; Graduate Council - E. M. Lander and A. S. Tombes; Parking - H. W. Graben; Educational Council - G. C. Kingsland; Library - M. W. Jutras; University Archives - E. M. Lander; Honorary Degree - G. C. Kingsland; Safety and Fire Prevention - R. H. Barker; Radio-Active Materials - W. D. McGregor; Disposal of Poisonous Chemicals - J. C. Fanning; Steering Committee for University Self-Study - H. R. Bungay; and University Discipline - G. C. Kingsland.

LEAVE POLICY - The current leave policies for twelve-month research faculty members are considerably out-dated, and are inferior to the policies of many other universities. A much improved revision of the leave policy was presented to the administration by the Council in 1968-69 and again during 1969-70. This policy was rejected by the administration on both occasions, even though considerable advantage would accrue to the University as a result of the revised policy. The Council strongly recommends that the revised leave policy statement be accepted as the official policy on leave and that it be included in the next edition of the Manual for Faculty Members.

HOODING EXERCISES - The Ph.D. hooding ceremony is the culmination of the student-faculty association and provides recognition for both the student and the faculty member. This ceremony, in addition, is one of the most significant and one of the briefest of the commencement ceremonies. For these reasons the Council strongly recommended that hooding exercises be retained at commencement. The recommendation was rejected.

GRIEVANCES - An important responsibility of the Council is the consideration of grievances of individual faculty members. A mechanism has been established whereby a faculty member may present grievances to the Council for consideration and action. Grievances considered justifiable by the Council are formally pre-

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 13, 1970 (continued)

sented to the appropriate administrative office by the Council Chairman. The Council thus provides an avenue of communication between the faculty member and the administration. The Welfare Committee of the Faculty Senate provides another avenue for the expression of grievances.

PARTICIPATION OF FACULTY MEMBERS IN SELECTION OF DEPARTMENT HEADS - The Department Head is the most direct contact between the individual faculty member and the University administration. Any situation which could lead to increased understanding and cooperation between the Department Head and the faculty member would be to the advantage of the individual, the department, and the University. Thus active participation by faculty members in the selection of department heads would give the individual a sense of participation in a decision-making process which has a direct influence on his professional life and, in addition, would capitalize on the total intellectual resources of the department.

The Research Faculty Council has recommended that tenured faculty members participate in the selection of the Department Head in their respective departments, when a vacancy in this position occurs. It is further suggested that these recommendations be included in the next revision of the Manual for Faculty Members.

CONSIDERATIONS FOR SENATE-COUNCIL MERGER - The vast majority of the members of the research faculty are also members of the academic faculty. Consequently, those faculty members with dual membership are represented by the Faculty Senate as well as by the Research Faculty Council. Many of the issues considered by the Research Faculty Council are of importance to the academic faculty, as well as to the research faculty. These issues, therefore, could be considered by the Senate, as well as by the Research Faculty Council. In other words, there are occasions wherein items considered by one body or the other are of joint concern.

The Research Faculty Council, on the other hand, provides a second avenue of representative communication with the administration on a wide variety of problems. The Research Faculty Council, in addition, provides for the expression and consideration of research problems which would be considered by a research committee in the event of a Senate-Council merger. The Faculty Senate will be composed of a minimum of 35 members. This is approximately double the membership of the Council. Legislative progress may be hindered by the large membership.

The Research Faculty Council considered these alternatives at its February meeting and voted in favor of a study of the proposed new Constitution and By-Laws. The Council approved the merger at its March 26 meeting.

SUGGESTIONS FOR SOUTH CAROLINA RETIREMENT SYSTEM - Various provisions of the South Carolina Retirement System are revised periodically. The latest revision became effective in 1967. The Research Faculty Council has suggested that the following points be brought to the attention of the Director of the State Retirement System:

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 13, 1970 (continued)

1. Should a member cease to be an employee except by death or retirement, he shall be paid within six months after his demand therefor, but not less than ninety days after ceasing to be an employee, his total contributions with interest at five per cent. The interest paid should be reviewed periodically and adjusted if prevailing interest rates change.
2. The person nominated by a member to receive the full amount of his accumulated contributions, with interest, in the event of his death before retirement may, if such a member dies in service after the attainment of age sixty and/or after the accumulation of twenty or more years of creditable service, elect to receive in lieu of such accumulated contributions, with interest, an allowance for life in the same amount as if the deceased member had retired at the time of his death and had named such a person as beneficiary.
3. Retirement benefits shall be based on the average final compensation in the three consecutive fiscal years, within the last ten fiscal years of creditable service, giving the highest average.

Recent legislative action has approved the retirement compensation improvement listed as point 3. Other recent revisions have further improved certain provisions of the Retirement System.

SURPLUS GOVERNMENT PROPERTY - The State of South Carolina has had poor success in obtaining Federal surplus property suitable for use in research laboratories. Other states which have obtained large amounts of valuable surplus property have given special emphasis to their procurement programs. There is presently no mechanism by which Clemson University can make a major improvement in bringing more and better surplus property to our campus. The Research Faculty Council could provide a great service by coordinating requests for equipment and by alerting faculty members to availability of equipment and to the best methods for submitting requests.

Proposal: A committee should be formed with the following duties and responsibilities:

1. Maintain lists of currently available equipment.
2. Solicit requests from faculty members.
3. Establish and maintain contacts with state officials who process requests.

TUITION GRANTS - Tuition grants (cancellation) for children of faculty and staff are not unusual benefits in contemporary colleges and universities. Many schools have reciprocal tuition arrangements. These grants (cancellations) are valuable fringe benefits to faculty and staff members in terms of monetary savings and in terms of institutional pride. University-sponsored tuition grants (cancellations) would benefit the university in terms of employee morale, recruitment of new faculty members, and in terms of the Clemson image from the point of view of other universities.

ANNUAL REPORT OF THE RESEARCH FACULTY COUNCIL TO THE CLEMSON UNIVERSITY RESEARCH FACULTY, APRIL 13, 1970 (continued)

The Research Faculty Council reviewed a tuition grant proposal with the administration. Several factors were brought out in these discussions which resulted in the shelving of the proposal.

RETIREMENT POLICY - Highly knowledgeable faculty members with years of experience in their respective disciplines may be lost to the University if retirement at age 65 is mandatory. The Research Faculty Council recommended that the University retirement policy be administered with sufficient flexibility to permit retention past age 65 of faculty members whose continuance can be justified, and who are recommended by the appropriate department head. Dean Hurst has indicated that the present policy on the employment of faculty members past age 65 places the major responsibility for such a decision on the employee's department head.

RESEARCH SERVICES - The Council has recommended that information and data be assembled to determine the needs of various research interests, and that future development and building plans incorporate services, equipment and facilities which are essential to research progress. Some of the facilities suggested are liquid scintillation counting, electron microscope, analytical services, glass blowing, drafting, and instrument repair.

PROFESSIONAL DEGREES - The Council considers certain minimum standards essential to the integrity of the Clemson graduate program and the Clemson degree. Consequently, the Council has recommended that the M.S. and the Ph.D. degrees be reserved for research degrees requiring theses. Formal credit hours and course requirements should be at least as great for professional degrees as for research degrees.

REIMBURSEMENT FOR TRAVEL - The Council has recommended some minor changes in the policy governing reimbursement for traveling expenses. Travel allotments, however, are determined by state law. Consequently, revision of allotments cannot be decided at the University level.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 19, 1970

President B. J. Prochaska called the meeting to order at 4:15. The minutes of the meeting of April 24 were read and approved. Dr. Prochaska introduced Colonel Hare, Department of Military Science, replacement Senate member for the summer months for Major King. He then introduced Professor Cecil Godley, chairman of the University's self-study for 1970-71, for an explanation of the nature and purposes of the self-study. Dr. Godley outlined briefly the composition and purposes of the twelve University-wide committees which will do the major share of the study, and added that members of these and all departmental and college committees will be reported in full in the August Clemson Newsletter. He emphasized that committees are composed of staff, faculty, and students, following a decision by the administration that this would make the study more effective than the appointment of Deans and other officials to such bodies.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 19, 1970 (continued)

President Prochaska reported to the Senate that he had so far attended only one University committee meeting, that of the Educational Council. He called attention of the Senate to a report on campus unrest, now available for study, prepared by the American Council on Education. He also reported on the first meeting of the Senate Advisory Committee, at which appointments to standing committees were made and a calendar of meeting dates for the year set up.

Then, in response to the specific request of several members of the Senate, who had been instructed by colleagues to so inform themselves, President Prochaska read an objective chronological review of the events which comprise the so-called "McMains Case," that is, the events leading up to the dismissal of Mr. H. F. McMains, Department of Social Studies, from his University teaching appointment, and an outline of the subsequent appointment, at Mr. McMains' request, of a grievance committee to investigate the facts. President Prochaska also read the Faculty Manual statement concerning the formation, duties, and procedures of such a committee and explained that this outline had been followed exactly.

At the request of several members of the Senate, President Prochaska read aloud the findings of the grievance committee in the case and the letters to the Senate from Dean Victor Hurst, which, in accordance with the procedure outlined in the Faculty Manual, detailed the administration's response to the committee's findings and the administration's decision concerning disposition of the case. President Prochaska then reported that Mr. McMains had accepted the University's offer in settlement, and that the matter was considered closed.

When requested by the Senate to do so, Professor Hugh Adams, Senate member and also a member of the Clemson chapter of the American Association of University Professors, reported that so far as the local AAUP chapter was concerned, the case was also closed.

There remained, however, the concern and confusion of Senate members about the provision in the Faculty Manual governing public utterances by faculty members. A Senate resolution calling for the administration to clarify both this provision and its interpretations in practice had been referred by the administration to "the groups rewriting the Faculty Manual next year." Senate members, however, reported that the University's self-study committees had been told that they would not rewrite established University policies, and the Senate has not been instructed or authorized to make such a revision. President Prochaska agreed to request clarification of the status of the Senate's resolution and of the matter of the Manual revision.

Dr. J. C. Mullins, Chairman of the Welfare Committee, reported that the following matters would be the Committee's immediate concern:

1. the composition of the Clemson Newsletter;
2. faculty facilities in the proposed Student Union;
3. athletic facilities available for faculty use (to be undertaken by Dr. Joel Brawley on the Senate's behalf);
4. the matter of reimbursement for travel;

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 19, 1970 (continued)

5. the University's vacation and leave policies;
6. at the request of the Senate, the matter of 12 months' payment for 9-month employees, now handled through a bank rather than directly by the University;
7. at the request of the Senate, the possibility of having the University deposit faculty salary checks directly with local banks;
8. at the request of the Senate, the disparity between the status of an employee retiring at 65 and one retiring earlier, the former of whom may convert accumulated leave time into pay, while the latter may not.

Dr. John Idol, Chairman of the Admissions and Scholarship Committee, reported no action as yet.

Dr. J. C. Fanning, Jr., Chairman of the Research Committee, reported the formation of two sub-committees, headed by himself and Professor J. W. Hubbard. The Committee also decided to invite branch station members to attend meetings whenever their advice was needed, but not invite a man to permanent membership on the committee, a possibility which had been suggested by the Senate Advisory Committee. The Research Committee intends to investigate the possibility of a central research facility on campus, and the problem of page charges for the publication of research articles, for which some budgetary provision might be allowed.

Professor Hugh Adams, Chairman of the Policy Committee, reported the formulation of a resolution concerning Faculty Manual revision, but recommended its being tabled pending clarification of the rewriting of the Manual.

A motion by Professor J. L. Arbena concerning official University endorsement and promotion of specific academic programs not required for graduation was referred to the Admissions and Scholarship Committee for consideration.

A second motion by Professor Arbena concerning the possibility of an official statement of Clemson's purposes as seen by the faculty, requested by the self-study committee on aims and purposes, was referred by the Senate to the Policy Committee.

Dr. R. F. Borgman requested consideration of a method by which outside speakers invited to the campus might be better scheduled to avoid conflicts and attract a larger audience. This was referred to the Admissions and Scholarship Committee.

Dr. J. C. Mullins requested that the Admissions and Scholarship Committee also consider the present academic requirements for athletic grants-in-aid. He pointed out that the ACC requirement (an entrance score of 800) would disqualify some 200 Clemson students according to current enrollment figures. On the other hand, if the NCAA standard of a predicted GPR of 1.6 were adopted, experience suggests that we could expect the students to have a final average GPR of 1.1. The matter was put in the hands of the Committee.

The meeting was adjourned at 5:40 p.m.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 16, 1970

President B. J. Prochaska called the meeting to order at 4:15 p.m. The minutes of the meeting of May 19 were read and approved with the deletion of the phrase "the problem of annual leave for 12 month personnel" from the report of matters to be considered by the Research Committee. President Prochaska called attention to two announcements: the appointment of Dr. Joe Allen, Dr. Norman Olsen, and Dr. Chris Alley to the University Speakers' Bureau; and the clarification of the revision of the Faculty Manual, which Dean Hurst indicates is to be the duty of the Faculty Senate, and which is to be undertaken soon. President Prochaska also reported that he had just returned from a meeting of the Board of Trustees.

Professor J. A. Hash gave the report of the Welfare Committee: the question of annual leave has been held for further study; the committee had no suggestions to make concerning faculty facilities for the new Student Union Building and solicited suggestions from the Senate; the question of improving the Clemson Newsletter had been discussed and Administration representatives consulted, with the result that the committee recommended no Senate action, other than to request that departments be more selective in submission of items for publication.

Dr. John Idol reported for the Admissions and Scholarship Committee. The matter of the Administration's sponsorship of certain optional academic programs is still under discussion. Professor Idol moved the adoption of a resolution recommending that the University Speakers' Bureau be notified of and publicize the appearance on campus of speakers whose subjects might be of interest to the community at large, though their appearance were sponsored by and designed for a specific department. The motion was defeated with the suggestion that the Speakers' Bureau be consulted about what they could and would be willing to do in this regard before their cooperation be asked, and that the University News Bureau facilities be utilized by those bringing speakers to campus.

Professor Idol detailed the current Atlantic Coast Conference controversy concerning elimination of the requirement of an 800 SAT entrance score for participation in athletics and receipt of athletic grants-in-aid. Dean Kenneth N. Vickery is currently sampling the performance of past Clemson students with lower entrance scores in order to facilitate Clemson's part in the upcoming deliberations of a committee of college presidents of ACC member schools. Professor Idol added that, whereas Dr. J. C. Mullin had indicated that over 200 Clemson students were presently affected by the restrictions, the number is somewhat less; fewer than 50 freshmen each year, otherwise qualified for and admitted to the University, are barred from athletics by low SAT scores, and a number of these drop out of Clemson before their third or fourth year. The need for a faculty recommendation on this matter is not urgent, since President Caldwell of North Carolina State University, chairman of the ACC investigating committee, is absent on three months' leave. The committee therefore will study the matter in further detail, including reports and statistics compiled by the administration.

Professor J. W. Hubbard presented the report of the Research Committee. For the committee he moved adoption of a resolution calling for investigation of the

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 16, 1970 (continued)

needs for and possibilities of establishing a campus-wide research center, which passed unanimously:

The Faculty Senate recommends that information and data be assembled to determine the needs of various research interests. It is further recommended that future building and development plans incorporate items, services, equipment, and facilities which are essential to research progress.

Two further items are to be considered by this committee: faculty priorities in the computer center; and an examination of the patent policy outlined in the Faculty Manual.

Dr. Hugh Adams gave the report of the Policies Committee, including reading a draft of a faculty statement on University purpose. It was recommended unanimously that this statement be sent to all other Faculty Senate committees for careful examination, their reports to be presented to the Senate by the September meeting.

The first item of new business concerned a resolution presented by a group of faculty members, represented by D. R. LaTorre, M. W. Jutras, F. J. Keller, and G. D. Riggs. Dr. LaTorre briefed for the Senate the current University administrative organization, as outlined in the Faculty Manual, and the new organization which will go into effect on July 1, 1970, following the creation of three new administrative posts: Dean of Graduate Studies and Research; Dean of Undergraduate Studies; and Dean of Extension. It was pointed out to the Senate that:

1. this change of structure represents a unilateral decision of the Administration, approved by the Board of Trustees, the faculty having been neither consulted nor advised of the proposed reorganization;
2. the reorganization removes the faculty one step further from the decision making apparatus of the University;
3. this reorganization, coming just before a self-study is undertaken, appears to cast doubt on the Administration's faith in the study, part of which is devoted to an analysis and evaluation of the University organization;
4. the faculty is deeply disturbed by the news that, as of July 1, certain policy making bodies, whose duties and responsibilities are clearly outlined in the Faculty Manual (such committees as the Curriculum Committee and the Graduate Council), are to be reduced to the status of advisory groups, again without the advice or consent of the faculty. Such action will severely reduce the influence of the faculty on policy and curriculum matters and would permit the new deans to effect changes in these areas without faculty study and consent.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 16, 1970 (continued)

Dr. LaTorre moved the adoption of the following resolution:

It is recommended by the Faculty Senate that the present status of the Curriculum Committee, Graduate Council, and other such committees be retained until a thorough study can be made of these committees by the Faculty Senate. The study will be made to determine the purposes, roles, functions, and general structure of the committees and to make recommendations concerning their future. The Faculty Senate requests the participation of the Administration in this study.

This motion passed unanimously.

Professor R. F. Borgman presented a recommendation for committee study of the possibility of formal organization of the Graduate Faculty and reorganization of the Graduate Council, which was passed unanimously.

Professor J. A. Hash moved adoption of the Welfare Committee's resolution on a revision of the University's retirement policy, which the committee describes as discriminatory:

The Faculty Senate recommends that the University Retirement Policy of October 18, 1965, be amended to include the same rights and privileges for those employees who may elect to retire before reaching mandatory retirement age as for those who retire at mandatory age.

This resolution was passed unanimously.

Professor J. W. Hubbard moved adoption of a proposal by the Research Committee concerning the growing practice of professional journals to charge a fee for publishing papers:

The Faculty Senate recommends that due notice be taken of publication charges and their growing importance in research budgets, and that appropriate budgetary plans be made for them by the University administration.

This resolution was passed unanimously.

Professor E. B. Rogers called attention of the Senate to the value of Alumni Professorships and suggested that some formal expression of the faculty's appreciation of these grants be made to the Clemson alumni. It was agreed that such a statement be formulated by the appropriate committee.

The meeting was adjourned at 5:53 p.m.

Absentees represented by official summer replacements:

<u>Member</u>	<u>Replacement</u>
McNatt	McGregor
Gilliland	Kersey
King	Hare
Fanning	Bacon

Also absent were: Vernon Hodges; M. K. Richardson; J. C. Mullin.

FACULTY BASIC RESEARCH GRANTS

Applications are now being received by the Faculty Basic Research Committee for grants to faculty members to support research. Due to budgetary limitations the Committee has utilized funds for support in areas where other grants are not available, and also as "starter" grants to assist faculty members to initiate research which may later be funded by an off-campus agency. A grant proposal should include the title of the proposed research, the name of the applicant, the objective of the research, a brief description of the procedures anticipated and a realistic budget. Applications should be sent to the Dean of Graduate Studies and University Research, and must have the approval of the Department Head. Grants to be funded this year must be submitted by October 1, 1970.

DATES ANNOUNCED FOR NATIONAL AND RESTRICTED TESTS

Dr. Virginia S. Hardie (Dir Counseling Center) announces the scheduled dates for the administration of national and restricted tests. She urges deans and department heads to remind students interested in graduate study to take special notice and secure applications for registration from the Counseling Center, Room 20, Tillman Hall, where all tests will be given.

The following schedule of testing dates has been arranged:

Admission Test for Graduate Study in Business: Nov. 7, 1970; Feb. 6, 1971.
Architectural School Aptitude Test: Nov. 21, 1970; Jan. 16, 1971; Mar. 27, 1971.
Dental Aptitude Test: Sept. 25, 1970; Jan. 8, 1971; Apr. 23, 1971. Graduate Record Examination: Oct. 24, 1970; Dec. 12, 1970; Jan. 16, 1971; Apr. 24, 1971; June 19, 1971. Graduate School Foreign Language Test: Oct. 10, 1970; Feb. 6, 1971; Apr. 17, 1971. Medical College Admission Test: Date to be announced.
Veterinary Aptitude Test: Jan. 30, 1971.

The following special tests are given by appointment and for a fee: Miller Analogies Test; Minnesota Engineering Analogies Test; Doppelt Mathematical Reasoning Test; American Institute of Certified Public Accountants, Aptitude and Achievement Test; and specific tests for students transferring to other colleges and universities.

AGRICULTURAL EDUCATION

L. H. Davis (Prof and Hd), W. C. Bowen (Assoc Prof), E. T. Carpenter (Assoc Prof) and J. A. Hash (Asst Prof) attended the annual meeting of the Southern Agricultural Education Conference at Raleigh, N. C., Apr. 13-16. Dr. Davis presented a paper on "Upgrading Teacher Educators" and served as chairman of the nominating committee. Dr. Carpenter was elected president of the Teacher Education Section for next year.

John H. Rodgers (Prof and Dir, RCU) and Earl T. Carpenter (Assoc Prof) co-authored the second edition of Review and Synthesis of Research in Agricultural Education, June 1970. More than 1000 research documents were examined in updating the first edition which was published in 1965. This work is part of a research series published by the National Center for Vocational and Technical Education at Columbus, Ohio.

AGRICULTURAL EDUCATION (continued)

Lowery H. Davis (Prof and Hd) represented Agricultural Education at the American Vocational Association Board of Directors' summer meeting in Washington, D. C., July 6-10. On July 13-14 Dr. Davis participated in a conference with U. S. Office of Education officials concerning a grant for the preparation of vocational education teaching material by the American Association of Vocational Instructional Materials. He also participated in a Vocational Education Personnel Development Conference in Columbia, July 20-21. The primary objective was to begin preparation of a five-year State Plan for teacher education programs in S. C.

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) attended EAI-690 Programming and Operations Course in West Long Branch, N. J., June 1-5.

The following papers have been published: D. F. Bruley (Assoc Prof) and M. H. Knisely, "Hybrid Simulation - Oxygen Transport in The Microcirculation," Chem. Eng. Progress Symposium Series, Mass Transfer in Biological Systems, Vol. 66, pp. 22-23, 1970. D. F. Bruley (Assoc Prof); D. D. Reneau; H. I. Bicher; and M. H. Knisely, "A Mathematical Analysis Predicting Cerebral Tissue Reoxygenation Time as a Function of the Rate of Change of Effective Cerebral Blood Flow," "Blood Oxygenation," Plenum Press, pp. 175-200, 1970.

D. F. Bruley (Assoc Prof) was featured as a Chemical Engineering Educator in an article in the Spring issue of Chemical Engineering Education. He was the fourth professor so honored.

F. C. Alley (Prof) and Paul W. Mims initiated research on automobile exhaust through support from the 1970 Summer Project Grant from the Olin Corporation.

CHEMISTRY AND GEOLOGY

J. C. Fanning (Assoc Prof) has received a grant of \$8,533 from the Department of Health, Education and Welfare, Public Health Service, for a preliminary investigation of "The Reaction of Metalloporphyrins with Air Pollutants."

J. W. Huffman (Prof) attended the International Symposium on Natural Products Chemistry in Riga, Latvia, June 22-26. He presided over a session and presented a paper entitled, "The Synthesis of (+)-Hexahydroproneuciferine." Dr. Huffman also presented lectures at universities in England and Ireland.

J. F. Allen (Assoc Prof) participated during the summer as a visiting scientist with the NASA research laboratories in Houston, Texas.

R. D. Hatcher (Assoc Prof) has been granted \$30,000 by the National Science Foundation for research entitled, "Structural, Stratigraphic and Metamorphic History of the Tallulah Falls Dome and Adjacent Area, Northeast Georgia."

CHEMISTRY AND GEOLOGY (continued)

P. K. Birkhead (Assoc Prof) taught in the Summer Institute for Science Teachers at Fayetteville, N. C., offered by East Carolina University, sponsored by the National Science Foundation.

G. M. Haselton (Asst Prof) participated in the field mapping of the eastern district of Keewatin, west of Hudson Bay, sponsored by the Geologic Survey of Canada.

The following papers were presented by faculty members and graduate student at the S. C. Academy of Science, in Columbia, Apr. 24-25:

J. R. Bacon (Asst Prof) and R. Bruce Ferguson (Grad Stu), "Gravimetric and Polarographic Determination of Beryllium with 2-Methyl-8-Quinolinol."

A. L. Beyerlein (Asst Prof) and David J. Stanford (Grad Stu), "Light Scattering and Thermodynamic Properties of Carbon Tetrachloride-Ethyl Alcohol Mixtures."

A. R. Pinder (Prof) and A. K. Torrence (Grad Stu), "Synthetic Studies in the Eremophilane Sesquiterpene Group."

A. R. Pinder (Prof) and S. J. Price (Grad Stu), "The Chemical Constituents of Piper Ovatum, Part III. The Constitution and Synthesis of Piperovatine."

J. F. Allen (Assoc Prof) and Barry R. Edwards (Grad Stu), "Tracer Studies of Some Iron Cyanides."

J. F. Allen (Assoc Prof) and A. K. Bonnette (Grad Stu), "A Mossbauer Study of the Iron Cyanide System Using Isotopic Labelling."

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

W. D. Trevillian (Dean) has been appointed by Governor McNair to serve on a committee established by the 1970 S. C. Legislature to make a study of this state's textile industry, especially the effects of textile imports on the industry.

Wm. C. Laffoday (Coordinator, Professional Development) addressed the S. C. Heart Association conference in Columbia, July 28. He has been appointed to the S. C. Heart Association Committee for 1970-71.

The Professional Development program attracted record numbers of participants to its 1970 programs. In a year when many private and public adult education programs were hard hit by economic conditions, more people than ever enrolled in Clemson's variety of scientific and management oriented courses. These "professional students" came from 23 states and 3 foreign countries and from 159 various businesses and industries. The faculty for these forums and short courses numbered 84, coming not only from Clemson's own faculty, but from other universities and 27 different corporations as well. Perhaps the highlight of the entire program was the Textile Marketing Forum which attracted the local, regional, and trade press in large numbers.

COMPUTER CENTER

The Computer Center has been reorganized into three sections: Operations, Systems, and Programming. Alfred L. Griffiths, B. S., Miami University, has been appointed Manager of Operations; Joel A. Slaton, B. S, Clemson, has been appointed Manager of Systems; and Charles E. Kirkwood, Jr. has been promoted to Manager of Programming.

ECONOMICS

Hugh H. Macaulay (Alumni Prof) lectured to students and faculty at Texas Technological University on Apr. 24-25 and at the University of S. C. on July 2-3. Dr. Macaulay served as chairman of a committee from the Southern Association of Colleges and Schools which visited Louisiana Polytechnic University on July 26-28 to evaluate a proposed doctoral program in economics.

Dr. Macaulay has received a grant of \$30,150 from the Office of Water Resources Research for a two-year study of "Economic Effects of Subsidies for Pollution Abatement."

Bruce Yandle, Jr. (Asst Prof) has a note, "Urban Renewal: The Preconditions for Take-Off," accepted for publication in the November issue of Land Economics.

Dr. Yandle and Herbert Busching (Assoc Prof and Hd, Civil Engr) have received a grant for \$32,570 from Title I, HEW funds for a 16 month study of housing in S. C. The grant provides for the production of a 30 minute color TV documentary program.

ELEMENTARY AND SECONDARY EDUCATION

New faculty members for 1970-71 not included in the Newsletter of August 15 are: Sam L. Buckner, Asst Prof, B.S., East Tennessee State University; M.A., Appalachian State University; Ed.D., Auburn University; Married, one child. Teryle W. Carpenter, Lecturer, B.S., University of Oklahoma; M.Ed., Clemson University; 213 Strawberry Lane. Jean L. Hice, Asst Prof; A.B., Shorter College; M.Ed., Georgia Southern College; Ed.D., University of Georgia.

ENGLISH

Harriet Holman (Assoc Prof) recently published "A Jamesian Georgian, Princess Eugenia Ruspoli of Rome" in Collections of the Georgia Historical Society. Dr. Holman also has an article, "Longfellow in the 'Rue Morgue,'" published in the fall issue of ESQ.

J. J. McLaughlin (Assoc Prof) published "Political Allegory in O'Casey's Purple Dust" in the May Issue of Modern Drama.

J. L. Idol (Assoc Prof) published a review of Moskowitz's The Man Who Called Himself Poe in the current issue of Studies in Short Fiction.

ENGLISH (continued)

A. J. Fear (Assoc Prof) participated in the conference of the American Speech Communication Association in Chicago, July 9-11.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins, Jr. (Prof) was in charge of a conference on the biology and control of tabanids held at the Hobcaw House, Baruch Plantation, Georgetown on May 27-30. Twenty-seven workers from the eastern United States registered.

H. A. Loyacano (Asst Prof) attended and participated in the meetings of the Research Committee of Catfish Farmers of America in Mobile, July 9-11.

R. C. Fox (Prof) presented a talk to the S. C. Section of the Society of American Foresters at their meeting at Myrtle Beach on June 24. His subject was "Integrated Pest Control - New Concept or Old Suslavatism."

R. F. Nash, Jr. (Asst Prof) attended the Southern Nurseryman's Association Conference in Atlanta, Aug. 1-4. He presented the results of his research on ornamental pests to the group.

A symposium, sponsored by the Belle W. Baruch Research Institute, was held at Hobcaw Barony, Georgetown on Aug. 13. The featured speaker was Dr. D. M. Benjamin, Prof of Forest Entomology, University of Wisconsin. He gave an illustrated talk on "A Tea Safari in East Africa" and discussed insect and disease problems of tea culture. Twenty-three forest entomologists from eight states were in attendance. R. C. Fox (Prof) served as coordinator for the program.

T. R. Adkins, Jr. (Prof) attended the ground-breaking ceremonies of the new Marine Center at Fort Johnson, James Island, S. C. on July 24. James A. Timmerman, former graduate research assistant and Clemson graduate is the Director of the new Center.

A grant of \$50,000 (two years) for biological control research on budworms and bollworms has been awarded by USDA-ARS. Most of the work will be done at the Pee Dee Station under the supervision of Dr. S. B. Hays and Dr. A. W. Johnson.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Prof and Hd) presented a seminar on Apr. 30 to faculty and students in Public Health Engineering and Water Resources at the University of Newcastle upon Tyne, England, and attended a meeting of the Institute of Public Health Engineers held in Newcastle. The topic of the seminar was Environmental Engineering Education and Research at Clemson University.

T. M. Keinath (Asst Prof) attended a short course entitled "Applied Surface and Colloid Chemistry" which was held in San Francisco on May 18-20.

ENVIRONMENTAL SYSTEMS ENGINEERING (continued)

B. C. Dysart (Assoc Prof) presented two days of lectures at a two-week summer institute entitled "Applied Mathematical Programming in Water Resources." Dr. Dysart's subject area was dynamic programming. The institute was held at the University of Nebraska July 27-Aug. 4 and was attended principally by federal resource agency personnel.

A group of Clemson University graduate students listened to Dr. George E. Symons, editor of Water and Wastes Engineering, who was lecturing by telephone from his office in New York City, more than 500 miles away. The occasion was the first in a series of teleconferences scheduled to allow students to talk with outstanding leaders in the field about topics they are studying.

J. F. Andrews (Prof and Hd) visited the Thames research station of the Water Research Association, Medmenham, England, on Apr. 28 and discussed mutual research interests with the Association Director, Dr. R. G. Allen and his staff. Dr. Andrews also visited the staff of Omnium d'assainissement, Paris, France, June 22-24. This organization is responsible for wastewater collection and treatment in Paris.

Dr. Ing. W. von der Emde presented a seminar entitled "Aeration Systems in Europe" on July 20. Dr. von der Emde is head of the Institute for Water and Wastewater Treatment, University of Technology, Vienna, Austria and is also Vice-President of the International Association for Water Pollution Research.

A. M. Bruce, B.Sc., A.M. Inst. W.P.C., presented a seminar entitled "Application of Trickling Filters to Wastewater Treatment in England" on Aug. 3. Mr. Bruce is a Senior Scientific Officer with the National Water Pollution Research Laboratory in England.

Dr. Shozo Koga presented a seminar entitled "Model Studies of the Chemostat with Special Reference to its Transient Behavior" on Aug. 7. Dr. Koga is head of the Department of Biophysics, Institute of Applied Microbiology, University of Tokyo, Japan.

Mr. Paul Brouzes, Process Research Engineer, Omnium d'assainissement, Paris, France, visited with John F. Andrews to discuss mutual interests on the computer control of wastewater treatment plants. Mr. Brouzes is currently planning a computer controlled plant for Paris.

J. F. Andrews (Prof and Hd) presented a formal discussion of a paper entitled "Oxygen Uptake and Mechanism of Substrate Purification in a Model Trickling Filter" (P. Monadjemi and V. C. Behn, Authors) at the 5th International Conference on Water Pollution Research, San Francisco, July 29. Dr. Andrews also presented a paper on "Kinetics of Biological Uptake of Organics from Wastewater" at a workshop on Research Problems in Water Pollution, University of Colorado, Aug. 5. This workshop was jointly sponsored by the National Science Foundation and the Physics Department of the University of Colorado.

ENVIRONMENTAL SYSTEMS ENGINEERING (continued)

Environmental Systems Engineering has been selected by the federal government to develop a national program for training wastewater treatment plant operators at two-year post-high school institutions. The Federal Water Quality Administration (FWQA), supporting the project with a \$50,016 grant, has requested ESE to develop both a standard curriculum for the training program and a method for selecting the institutions where it will be offered. A similar FWQA grant for \$12,737 will be used by ESE to develop criteria for use of federal funds to improve wastewater treatment curricula for civil engineering undergraduates at universities throughout the country. These projects are being directed by John H. Austin (Prof).

FOOD SCIENCE

J. H. Mitchell, Jr. (Prof) presented a paper entitled "Processing Oilseeds into Edible Food Products" at the Third International Congress of Food Science and Technology Aug. 11-15, in Washington, D. C.

INDUSTRIAL EDUCATION

J. Page Crouch (Asst Prof) and Raymond S. Fedele (Grad Asst) attended a five-day conference of the International Graphic Art Education Association at Rochester Institute of Technology, Aug. 10-14. They also participated in a two-day Kodak Workshop. Dr. Crouch was appointed as National Chairman of the Industrial Arts Committee of the IGAEA.

INDUSTRIAL MANAGEMENT

C. H. Whitehurst (Prof and Hd) (while on leave at University of Edinburgh, Scotland) was a discussant in several colloquia and forum programs while studying in Scotland: A colloquium held May 2 on "The South (U.S.) since 1920" which was arranged by the North American Studies Programme of the University of Edinburgh with the assistance of the American Embassy, London. A conference on "The European Soldier" sponsored by the University/Services Study Group of Edinburgh University on May 17. Dr. Whitehurst's subject was "American ROTC: Its Role as a Supplier of the Junior Officer." A special Management Studies Forum for Diploma Students at Strathclyde University on May 21. His subject was "Some Emerging Management Problems." A lecture on "American Management Education" to the Executive Development Program students (British Senior Managers) at the University of Edinburgh's College of Commerce on May 28. A Scottish television panel discussion on "The Future of America" on May 30.

Carl L. Dyer (Asst Prof) and T. H. Gunter (Asst Prof) attended the Quantitative Methods in Marketing Workshop on July 30-31 at Virginia Polytechnic Institute in Blacksburg.

F. R. Gray (Assoc Prof) has been elected to the Board of Directors of the Western Carolina Chapter of the National Association of Accountants.

E. A. LaRoche (Assoc Prof) has been elected Secretary of the Textile and Needle Trades Division, American Society for Quality Control.

MATHEMATICS

James L. Flatt (Assoc Prof) served on an NSF Panel evaluating NSF In-service Institute proposals July 24-25 in Washington, D. C.

John Kenelly (Prof and Hd) has been invited to serve as visiting lecturer for The Mathematical Association of America during 1970-71.

John Kenelly (Prof and Hd) and William Hare (Assoc Prof) authored a paper entitled, "Sets expressible as the union of two convex sets," which appeared in Proceedings, American Mathematical Society, Vol. 25 (1970) pp. 379-380.

Joel V. Brawley (Assoc Prof) authored a paper entitled, "On the ranks of vector spaces of matrices" which appeared in Linear Algebra and Its Applications, Vol. 3, 1970, pp. 51-55.

Joel V. Brawley (Assoc Prof) representing the Mathematical Association of America and Clemson University lectured at Loyola College in Baltimore, Md. on Apr. 29-30. The titles of the lectures were "Can You Count?" and "Gambler's Ruin." Dr. Brawley also lectured to the Summer Institute for College Teachers of Mathematics held at Vanderbilt University in Nashville on July 6.

SCHOOL OF NURSING

Dean Geraldine Labecki has been appointed a member of the Executive Committee of the State Board of Health by Governor McNair. The term of office expires May 11, 1977.

SOCIAL SCIENCES

W. C. Capel (Asst Prof), along with David Youngblood and G. T. Stewart, M.D.'s at Tulane, has published "Note on Stress, Anxiety and Related Defenses in a Controlled Situation," in Psychological Reports, Aug. 1970.

On June 26 at Minneapolis, W. C. Capel (Asst Prof) presented a paper to the Society for Epidemiological Research on "Edemic Heroin Addiction in New Orleans." Prof. Capel has also been named to the Editorial Board of Journal of Drug Issues, a new international journal in this area.

TEXTILES

E. S. Olson (Assoc Prof) attended the Gordon Research Conference, New London, N. H. on July 6-10. He presented a paper entitled "Diffusion of Cationic Dyes in Acrylic Fibers Using Organo-Solvent Dye Systems." Prof. Olson also attended the Fourth International Wool Symposium at Berkeley, Calif. on Aug. 17-28.

Frederick T. Simon (Sirrime Prof of Textiles) has been selected by the U. S. National Committee of the International Commission on Illumination to serve on the National Colorimetry Technical Committee.

FRANK HOWARD TO LEAD 1971 STATE HEART FUND DRIVE

Frank Howard (Dir Athletics) has been named State Heart Fund Chairman by the South Carolina Heart Association for the 1971 Drive beginning in February. He will plan the strategy for the entire campaign and will direct volunteers throughout the state in raising funds for the fight against heart disease.

1970 ALUMNI REUNION BEST EVER

Twenty-one classes (1898-1957) returned to campus in June for the 1970 Alumni Reunion. Members of the Class of 1920 observed their Golden Anniversary. More than 800 alumni and friends attended the annual banquet where five alumni received Distinguished Service Awards for their accomplishments and services to the University. Honored were Milton Berry (1913) of Atlanta, Ga.; States R.G. Finley (1918) of Chattanooga, Tenn.; William Clapp (1923) of St. Petersburg, Fla.; Tom Millford (1929) of Clemson; and Charles Hammond (1942) of Pittsburgh, Pa.

The highest tribute from alumni to non-alumni -- honorary membership in the Alumni Association -- was accorded:

-- Mrs. Willard B. (Sybil) Albert, former Clemson "Mother of the Year" and for 16 years a member of the Student Affairs staff and secretary to Vice President Walter Cox.

-- Mrs. S.J.L. Crouch, devoted friend of the University and widow of Dr. Sydney J.L. Crouch, head emeritus of religion.

-- Dr. Jack K. Williams, former vice president for academic affairs who is now vice president for academic affairs in the University of Tennessee system.

-- Mr. Fred Zink, Jr., general manager of the Clemson House who retired this year after 22 years of service.

-- Dr. Ray W. Rutledge, professor of botany who is retiring this year after serving on the faculty for 24 years.

-- Prof. Alan J. McCutchen, associate professor of civil engineering who retired last December after 13 years of service.

CALENDAR OF CAMPUS EVENTS

Sept. 2	Wed.	4:00 p.m.	Plant Pathology and Physiology Seminar - Dr. L. David Dwinell, Forestry Sciences Laboratory, Southeastern Forest Experiment Station, Athens, Georgia -- "Electronic Information Retrieval and Phytopathology Room 222, Long Hall.
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Sept. 2	Wed.	11:15 a.m.	Dr. Clarence M. Wilson, Atlanta, Ga., Agronomist, Agri-Chemicals, United States Steel Corporation -- Anhydrous Ammonia Production, Processing and Use - Room A203 P&AS Building.
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RECAP OF CAMPUS EVENTS Continued

- Sept. 3 Thurs. 12:55 p.m. Agronomy Seminar - Dr. N.R. Page, Accumulation and Distribution of Micronutrients (copper, manganese, zinc) in a Coastal Plain Soil - Room A203 P&AS Building.
- Sept. 3 Thurs. 3:45 p.m. Women's Club reception for Newcomers, Clemson House.
- Sept. 7 Mon. Nominations for freshmen officers - Labor Day.
- Sept. 8 Tues. 4:00 p.m. Food Science Colloquium Series - Speaker will be Dr. W.P. Williams, Jr. -- "Food Research at Clemson University" - Room F-150 P&AS Building.
- Sept. 9 Wed. 11:15 a.m. Dr. Irvin M. Wofford, Savannah, Ga., Agronomist, Kaiser Chemicals. Production, Processing and Use of Nitrogen Plant Foods - Agronomy Seminar, Room A203 P&AS Bldg.
- Sept. 10 Thurs. Fall General Meeting of Ft. Hill-Clemson Alumni Club on Lake Hartwell at Wilson's Landing in Clemson.
- Sept. 10 Thurs. 12:55 p.m. Agronomy Seminar - Mr. S.M. Rishi, Effect of Fumigants on the Microbial Population in Soils - Room A203 P&AS Bldg.
- Sept. 11 Fri. CDA Rat Hop.
- Sept. 12 Sat. 1:30 p.m. Football - Citadel at Clemson.
- Sept. 12 Sat. CDA Concert - Coliseum.
- Sept. 15 Tues. Freshman Class Elections.
- Sept. 15 Tues. 4:00 p.m. Dr. Hal Jonsson, Biochemistry Department, Medical University of South Carolina, will speak on "Fatty Acid Metabolism in the Ovary" in Room A-101, P&AS Building.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSONCLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM**NEWSLETTER**

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 3

September 15, 1970

BLUE CROSS OPENS ANNUAL ENROLLMENT PERIOD

Representatives of Blue Cross-Blue Shield Insurance will be on Campus September 25 through October 25, 1970. This is the annual enrollment period for group insurance available to all faculty members and other regular employees of Clemson University.

During this enrollment period any member of the Blue Cross-Blue Shield program may make changes (additions, deletions, etc.) if desired to fit their individual and/or family needs. Initial applications will also be accepted during this period for those who desire insurance coverage through this plan.

New employees may apply for insurance anytime during their first 31 days of employment. Other employees may apply for insurance or request changes in present coverage only during the annual enrollment period, September 25 - October 25. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time.

Appointments may be made with the representatives by telephoning Mr. W.J. Stamey in the Personnel Office, Extension 2426.

FOOD SCIENCE COLLOQUIUM SERIES

Six additional seminar lectures on food science to better acquaint University students and faculty with this important field will be offered this semester. The Food Science Colloquium Series, sponsored by Clemson's food science department, opened Sept. 8 with a talk by Dr. W.P. Williams Jr., head of the department.

Three other speakers have already been scheduled and three will be announced later. On Sept. 22, Dr. C.S. Tang, assistant professor of agricultural biochemistry, University of Hawaii, will discuss his research on a chemical compound responsible for the flavor of papaya fruit. Featured Oct. 6 will be Dr. J.H. Mitchell Jr., Clemson professor of food science, whose topic will be "Some Factors Affecting Food Stability." Scheduled Oct. 20 is Dr. C.J.B. Smit, professor of food science, University of Georgia, who will discuss the manufacture, standardization and use of low-ester pectins, compounds used to form the gel in jams and jellies.

Lectures will also be given on Nov. 3, Nov. 17, and Dec. 1. All seminars will be held in Room F-150, plant and animal science building, at 4 p.m. Dr. J.J. Jen, assistant professor of food science and biochemistry, is in charge of the series.

FACULTY BASIC RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for Faculty Basic Research Committee grants should be in the Office of University Research not later than November 2, 1970. Application forms may be secured in the Office of University Research. Only proposals using the FBRC application form will be considered by the Committee.

PUBLICITY FOR SEMINAR SPEAKERS AND GUEST LECTURERS

In response to a request by a member of the Faculty Senate, the Admissions and Scholarship Committee sought to find an effective means of publicizing the appearance of seminar speakers and guest lecturers. The Committee believes that directors of seminars or sponsors of professional or educational societies within your college or department would appreciate knowing how to use one existing means.

The facilities of the News Bureau of Clemson University are available to any department desiring to publicize the appearance of seminar speakers or guest lecturers.

Whenever department heads, directors of seminars, and professional or educational societies have speakers addressing themselves to topics of interest to the university community (or to a wider audience), the News Bureau can provide publicity if given the necessary information and adequate time to prepare news releases.

Anyone planning to use the services of the News Bureau should

1. send information containing the following materials to the News Bureau ten days to two weeks in advance of the appearance of a seminar speaker or guest lecturer:
 - a. the name of the speaker together with a brief biographical sketch
 - b. date of appearance
 - c. place of appearance
 - d. time of appearance
 - e. topic of the address or lecture together with an abstract of the content of the address or lecture
 - f. a glossy print of a picture of the speaker (optional)
2. request that someone from the News Bureau cover the address or lecture and write a follow-up story to be released to the wire services (optional)

The Committee suggests that directors of seminars and sponsors of professional or educational societies determine whether the topic to be discussed deserves more than the customary publicity given within departments or colleges. The Committee also suggests that persons using the facilities of the News Bureau specify whether the News Bureau should distribute news releases to campus facilities (The Tiger and the student radio station) or to the channels open to the News Bureau on a state-wide or regional basis or to both. The Committee further recommends that the basis for requesting follow-up coverage should be the timeliness and newsworthiness of the address.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 21, 1970

President B. J. Prochaska called the meeting to order at 4:21 p.m. After two alternates were introduced (Reel for Arbena and Thompson for Godbout) the minutes of the meeting of June 16 were approved as circulated.

President Prochaska reported the formation of three ad hoc committees: Committee A to study revision of the Faculty Manual will be chaired by M. W. Jutras; Committee B to study the Borgman proposal on the Graduate Faculty and the composition of University standing committees will be chaired by R. F. Borgman, and a further non-senate member, S. M. Lukawecki, has been added to the group; the third group, the Committee to study faculty needs in the new student union, will be chaired by V. S. Hodges.

President Prochaska also reported on several suggestions for the speeding of Senate business that were approved by the Senate Advisory Committee: the president will pass directly to committee certain proposed resolutions that need investigation before discussion; prior to the meetings, as many proposed resolutions as possible will be circulated in mimeographed form for study in advance of the meeting time; and the minutes will be similarly circulated, rather than read aloud at each meeting, and only changes or corrections will be discussed.

President Prochaska reported on the status of the resolutions passed at the June Senate meeting as follows:

- the Administration requests further specific information about the proposed central research facility;
- the Administration does not plan to change the status of such committees as the Curriculum Committee and the Graduate Council during the coming academic year, although there will be membership changes, including the addition of student members;
- the Administration is checking the retirement policies brought into question by the Senate's resolution;
- the Administration pledges its continued support for research, as well as for other University activities, with special note of the rising cost of research publication.

President Prochaska announced that, following the resignation of Dean C. V. Aucoin to return to full-time teaching, department heads of the College of Physical and Mathematical Sciences have been asked to nominate faculty members to a committee to work with the Administration to find a qualified replacement as dean; the faculty should know of the Administration's desire to consult the faculty in this important matter. President Prochaska added that since, as of July 1, there is a new college, the College of Forest and Recreation Resources, in the University, there will be an additional Senate member in the fall to represent that college, and there will be a mandatory reapportionment of the Senate to accommodate the new college in February, 1971, as provided in the constitution.

President Prochaska read a letter from Professor J. V. Brawley, who represents the Senate on the Athletic Facilities Committee, outlining the tentative plans for renovation of Fike Field House and soliciting suggestions from the faculty for additions or changes in those plans.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 21, 1970 (continued)

President Prochaska concluded his announcements with a call for volunteers to help with the August orientation program for new faculty and staff.

Professor J. C. Mullins reported that the Welfare Committee had not met, but presented their tentative agenda: examination of annual leave policies, inequities in promotion policies, complaints about housing allocations, travel payment policies, and in response to Professor Brawley's letter, suggestions about the renovation of the field house.

Professor J. L. Idol reported for the Admissions and Scholarship Committee. He circulated a copy of a procedure sheet which the committee hopes to send to all deans and department heads which might help their making more efficient use of the University News Bureau to publicize speakers and seminars. He added that two matters are still under the study of his committee: athletic grants-in-aid requirements, and the Administration's endorsement of specific optional academic programs.

Professor J. C. Fanning, Jr. reported that the Research Committee was concerned with formulating a questionnaire which would answer many of the Administration's questions about the need and use for a central research facility on campus, and that on the committee's agenda was examination of complaints and suggestions about the computer center.

Professor H. D. Adams reported that the Policy Committee had not met since the Senate meeting in June, and reminded Senate members that the faculty statement of University purpose would be on the Senate agenda at the September meeting, by which time Senators should have had a chance to study it and formulate specific suggestions for change.

Professor J. C. Mullins presented the first item of new business, a motion to endorse and to request circulation to all faculty, students and staff of the University Board of Trustees' statement of policy concerning conduct (dated May 28, 1965). After a second to the motion, three amendments were proposed, seconded, discussed, and voted in turn, only one amendment (to delete words suggesting urgency in time) passing. The final resolution, as amended, which passed by a vote of 15 to 10, reads as follows:

The Faculty Senate endorses and supports the "Policy Concerning Conduct of Students and Employees of Clemson University: as approved by the Board of Trustees of Clemson University, May 28, 1965. It is further resolved that the above stated policy should be disseminated to all students, faculty, and employees."

Some of those who dissented from the approval of the resolution wished the minutes to reflect that a number of negative votes were not opposed to the spirit of the Board of Trustees' policy statement, but rather reflected a serious difference about the wording of the statement. Several of those voting against the resolution to endorse the statement wished it known that, were the wording of the policy changed, they would endorse it whole heartedly.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 21, 1970 (continued)

Professor Mullins moved a second proposed resolution requesting the Senate to remind all faculty and staff that it is their responsibility to "see that students abide by existing regulations concerning proper dress on campus. Further, dress regulations should be amplified to clearly indicate that clothing shall be kept in a reasonably hygienic state." This motion was defeated.

The meeting was adjourned at 5:30 p.m.

Absentees: M. W. Jutras; E. T. Sims; R. L. Hays; J. W. Hubbard; J. K. Johnson; W. E. Castro; G. D. Riggs; E. A. Vaughn; B. C. Caffrey.

MINUTES OF THE MEETING OF THE FACULTY SENATE, AUGUST 18, 1970

President B. J. Prochaska called the meeting to order at 4:15 p.m. The minutes of the previous meeting were approved as circulated. President Prochaska made the following announcements:

1. Professors J. C. Mullins and J. C. Fanning were thanked for their help in the program of orientation for the new faculty.
2. Since the Senate's Ad Hoc Committee B was designed to include members of the Administration, Deans Claud B. Green and Arnold E. Schwartz will serve as working members of that committee.
3. Two appointments to the University Traffic and Parking Committee were announced: Rose Godbout, to serve until June 30, 1973, and Henry W. Graben to continue on the committee until June 30, 1972. President Prochaska added that appointments will shortly be made to four additional University committees: Admissions, Patents, Safety and Fire, and Disciplinary.
4. In endorsing the Board of Trustees' "Policy Concerning Conduct of Students and Employees of Clemson University" at the July meeting, Senate members had expressed some concern over the wording of certain parts of the policy statement. President Prochaska pointed out that, to his knowledge, part of the purpose of the Disciplinary Committee was to aid in implementing that Board of Trustees' policy, which was one of the matters that had concerned the Senate.
5. President Prochaska reported that the Senate will shortly receive a statement from the Administration concerning last year's resolution requesting the elimination of re-examinations for seniors.

Reports of the standing committees of the Senate began with the report by Professor J. C. Mullins on activities of the Welfare Committee. Still under study are the matters of annual leave, and inequities in promotion and teaching loads, while the matter of travel pay has been tabled for the time being. The Committee has prepared a statement on faculty housing, taken from material furnished by the Housing Office, to present to Ad Hoc Committee A (on revision of the faculty manual), and recommends that such a statement be included in the revised manual. Finally, a letter is in preparation to Dean Hurst outlining the Committee's findings on an investigation of certain retirement policy problems.

MINUTES OF THE MEETING OF THE FACULTY SENATE, AUGUST 18, 1970 (continued)

Professor John Idol reported for the Committee on Admissions and Scholarship that the letters advising department heads and deans of publicity channels for seminar speakers had been distributed. No further committee action was undertaken in the previous month.

Professor J. C. Fanning reported for the Research Committee on the development of the questionnaire which will be circulated investigating present research equipment and facilities, and the possibility for a central research facility. The Committee had also discussed the statement of the University purpose and patent policies without reaching conclusions.

Professor H. D. Adams reported that the Policy Committee had not met since the last Senate meeting of July. He read a letter to him from the national headquarters of the American Association of University Professors which expressed approval of the Senate's request for clarification of the Administration's position on public statements by Clemson employees. The letter pointed out a fundamental problem in the University's request that employees avoid identification with Clemson, adding that such identification is traditional across the country as a privilege of University personnel and urges the faculty at Clemson to continue in their efforts for a clear statement of the policy which will be enforced. AAUP further promised that they would take an active interest in any case in which this policy resulted in dismissal of a staff member, should that case not be resolved at the local level. The Administration, which received a copy of the AAUP's letter, has advised the faculty through the President of the Senate that should any revision or amendment be made to this policy, it would be appropriate that this be done through the efforts of the Faculty Senate.

Professor M. W. Jutras, Chairman of Ad Hoc Committee A, reported that the group would meet on Thursday, August 20, with Dean Hurst for a preliminary discussion of its responsibilities and duties.

Professor R. F. Borgman reported that Ad Hoc Committee B is undertaking a survey of other colleges and universities regarding the status, procedures, responsibilities, and limitations of graduate faculties and councils elsewhere.

Professor Vernon Hodges reported that the Ad Hoc Committee for the Student Union had considered at length the report and summary presented by the University-wide committee on the Union and had talked with Dean Walter Cox and Professor J. L. Young, who had worked on the project for an eight-year period. He read out portions of the report including a detailed list of facilities proposed for the main Union Building, pointing out that certain of the major facilities would have to be deleted for lack of funds: the post office, the book store, food services, and possibly the theatre.

Professor Hodges presented his Committee's conclusion that the remaining main building comprised primarily meeting rooms for special interest groups and student government, and either had lost or never had those services and facilities which would attract either the faculty or the student body at large in sufficient numbers, so that the remaining plan could best be characterized as of questionable value as an all-campus center where students and faculty

MINUTES OF THE MEETING OF THE FACULTY SENATE, AUGUST 18, 1970 (continued)

could mingle socially. Discussion from the floor expressed great Senate concern with the lack of provision for faculty recreation or social activity, but even greater concern that the presently planned Union would prove to be of little value to the student body.

At this point, Professor J. C. Mullins, Chairman of the Welfare Committee, reported on the study made by that committee with respect to the student athletic facilities which are currently a portion of the Union plans. These plans call for the expenditure of approximately \$3-million for the remodeling and enlargement of Fike Field House, which presently houses the Athletic Department, for student use, and in addition for the building of a new structure to house the displaced Athletic Department. His committee had prepared a resolution recommending re-examination of these plans, and had passed it to the Administration, before presentation to the Senate, to check the accuracy of the facts in the arguments.

Professor Mullins was pleased to report that, having learned of the Senate's concern with the problems involved in the field house renovation, the Administration suggested that the project be held in abeyance until the details could be studied further and comparative advantages of various alternatives be weighed in greater detail. Professor Mullins reported that his committee was grateful for the Administration's understanding and spirit of cooperation, and added that no resolution was therefore needed on the Fike Field House renovation at this time.

In the discussion which followed, the opinion was expressed that Clemson students genuinely need a full physical activities program, and some interest in the establishment of an academic unit for physical education was expressed. It was pointed out that Clemson once had the activities of a military oriented school, but since it became a full university, the needs of the students for physical training and activities had not been met. Serious consideration should be given to a new University unit for physical education, as well as the present concern with extra-curricular activities.

General interest in faculty facilities and/or a faculty club at the University was expressed, and Professor Hodges' Ad Hoc Committee was instructed to solicit opinions from the Senate and the faculty at large to prepare specific suggestions that might be presented to the Administration for faculty use of the new Union.

In the light of this discussion, and considering that the Senate felt that the faculty should both support and share responsibility with the administration for re-examination of plans which had moved so far toward their final stages, it was decided to move for a re-examination of the Union project; after considerable discussion, the motion was presented by Professor G. D. Riggs, seconded by Professor D. R. LaTorre in the following form:

The Faculty Senate requests the Administration to reconsider the allocation of the entire \$6-million provided for construction of a University Union Building.

The motion was passed by a vote of 17 to 7, with 2 abstentions.

MINUTES OF THE MEETING OF THE FACULTY SENATE, AUGUST 18, 1970 (continued)

Professor R. F. Borgman presented a resolution prepared by Ad Hoc Committee B, seconded by Professor N. D. Camper, which was prepared in the belief that the Faculty should be kept fully informed on items of importance concerning graduate study:

The Faculty Senate resolves that the minutes of the Graduate Council should be published in the Newsletter.

The motion was passed 24 to 0, with 2 abstentions.

The meeting was adjourned at 5:55 p.m.

Absentees: J. P. Crouch; T. R. King; G. W. Gray; J. K. Johnson; M. K. Richardson; W. E. Castro; B. C. Caffrey; and W. C. Whitten.

MINUTES OF THE GRADUATE COUNCIL, AUGUST 8, 1970

The Graduate Council met August 8, 1970. Members present were A. E. Schwartz W. C. Godley, H. W. Graben, R. M. Allen and G. D. Riggs.

Subject to a review of final grades (whereas candidates must have a B average motion was made that all those on preliminary list less those on the deletion list be approved for graduation. Motion was passed. (The deletion list was developed by crossing off those not completing final examination; this list was confirmed by conversations with advisors and department heads.)

A motion was made that a monthly report of the actions of the Graduate Council be prepared for the Clemson Newsletter. Motion passed.

MINUTES OF THE MEETING OF LIBRARY COMMITTEE, APRIL 7, 1970

Present: J. L. Idol (Chairman); Ralph Knowland; J. F. Pearce; L. L. Byrd; Opal Hipps; D. R. LaTorre; J. W. G. Gourlay (Secretary).

Minutes of the meeting of March 3 were approved.

Ad Hoc Committee to study changes in the questionnaire to facilitate programming. Dr. LaTorre and Dr. Pearce reported on their March 25 meeting with Mr. Wiggins, Computer Center, and Dr. K. T. Wallenius, Mathematics Dept., to discuss the utilization that could be made of the computer in the sampling of student opinion and a screening of the faculty.

Recommendation: The self-study of the university library anticipates an opinion survey of the library by a screening of the faculty and a sampling of student opinion which will involve the use of the computer. The University Library Committee recommends that an appropriate tape file be established within the Computer Center and that President Edwards give permission for the University Library Committee to use it.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, APRIL 7, 1970 (continued)

Since it will take six months to establish such a file and since the University Library Committee would like to conduct the survey in October, the Committee requests that this recommendation be given consideration as soon as possible.

Dr. Idol was requested to write to Dr. Wallenius to express the appreciation of the Library Committee for his contribution to the work of the Ad Hoc Committee.

Report of Ad Hoc Committee on Use of Robert M. Cooper Library for Honorific Purposes. The working paper of the Ad Hoc Committee was presented. The University Library Committee accepted the revised edition of the Ad Hoc Committee's working paper.

The primary purpose of the Clemson University Library is to acquire, preserve and make available for use the library materials necessary for the instructional and research programs of Clemson University. Any application for the utilization of library space which is inconsistent with this purpose should be denied.

Recommendation: The University Library Committee as the faculty's representative, should be consulted whenever the allocation of library space is being considered.

Signs to indicate floor layouts. Director of Library presented the drawings which Mr. Horace W. Williamson had made for the frames and pedestals to indicate floor layouts in the library. Prices for this equipment would be obtained as soon as possible.

Policy governing the function and operation of the Library. Director of Library indicated that these policies were now ten years old. In the self-study he would like for the Committee to review these policies to see if any changes should be made.

Dr. Idol expressed his thanks to the University Library Committee for its work and cooperation during the year.

This would be the final meeting of the year unless he found it necessary to call a special meeting.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, SEPTEMBER 1, 1970

Present: D. R. LaTorre (Chairman); R. J. Calhoun; W. E. Castro; J. A. Hash; M. W. Jutras; R. E. Schoenike; J. M. Wannamaker; J. W. G. Gourlay (Secretary).

D. R. LaTorre was elected Chairman and J. W. G. Gourlay, Secretary.

Minutes of the meeting of April 7 were approved.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, SEPTEMBER 1, 1970 (continued)

Time of meeting: After discussion of the time when the majority of committee members could schedule a meeting, it was decided to continue to schedule the meeting for the first Tuesday in the month at 4:00 P.M.

The committee recommended that the approved minutes of the meeting of the University Library Committee, beginning with the April 7 meeting, be published in the Clemson Newsletter.

Director of the Library outlined briefly the responsibility of the Committee and reviewed some of its actions over the past ten years.

Dr. J. L. Idol, Chairman, Library Committee for Institutional Self-Study distributed copies of the Southern Association standards as these related to the library and commented on the six areas that would be surveyed (1) administration, (2) collection, (3) services, (4) facilities, (5) budget, and (6) projections.

Dr. D. R. LaTorre who is adapting the student opinion questionnaire so that it can be tabulated by computer reviewed the history of the questionnaire and its present status. He indicated that he would arrange to meet with Dr. Godley, Chairman of the Steering Committee for the Institutional Self-Study, Dean Green, Dr. Idol, Mr. Gourlay and representatives from the Computer Center to discuss details of the implementation of the survey.

Dr. Castro demonstrated the use of an audio-tape cartridge and commented on its value in the instructional programs of the University.

Time of next meeting - Tuesday, October 6, at 4:00 P.M.

ADMINISTRATION

C. B. Green (Dean of Undergraduate Studies) attended the twenty-ninth Triennial Council of the United Chapters of Phi Beta Kappa, meeting at Indiana University, Sept. 9-11. Dean Green was a delegate from the Piedmont Area Phi Beta Kappa Association.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. J. Lanham (Prof and Hd) and A. B. Carroll (Assoc Prof) have been appointed by Governor McNair to serve on a five-member Advisory Council to the Division of Research and Statistical Services, State Budget and Control Board.

AGRONOMY AND SOILS

U. S. Jones (Prof and Hd) was elected a Fellow of the American Society of Agronomy on Aug. 26, at the University of Arizona in Tucson.

AGRICULTURAL EDUCATION

J. Alex Hash (Asst Prof) presented a paper, "The Development of a Teaching Area Examination in Agriculture for the National Teacher Examinations," at the Southern Research Conference in Agricultural Education, University of Arkansas, July 30. This conference will meet at Clemson in 1971.

AGRICULTURAL ENGINEERING

The Water Resources Research Institute has received notice from the Office of Water Resources Research, U. S. Department of the Interior, of funds to be available for allotment and matching grant proposals for water resources research for the fiscal year 1972. The Directorate of the Institute will accept proposals until Oct. 15. A limited amount of State funds appropriated through the South Carolina Water Resources Commission is available to the Institute for matching purposes. For further details contact Dr. A. W. Snell, Chairman of the Directorate, in the Agricultural Engineering Department.

CIVIL ENGINEERING

H. W. Busching (Assoc Prof and Hd) attended the II Inter-American Conference in Mexico City, Mexico on Aug. 24-27, at which he presented a paper entitled "Fundamentals of Composite Materials - a Filmed Presentation." This film will be used in several courses in the future to provide an introductory survey about composite materials. Dr. Busching also attended a short course at MIT in Cambridge, Mass. entitled "Statistics and Probability for Civil Engineers," July 19-31.

F. L. Roberts (Asst Prof) presented a paper entitled "Pavement Serviceability Equations Using the Surface Dynamics Profilometer" at the summer meeting of the Highway Research Board in Sacramento, Calif. on Aug. 18. The paper dealt with a statistical treatment relating the opinions of a group of road users concerning the quality of a variety of test road sections to measurements made with the Surface Dynamics Profilometer. The final result was an equation predicting the opinion of the road users from the measurements made with the profilometer.

W. A. Welsh (Asst Prof) and R. E. Elling (Assoc Prof) attended the ASCE Fifth Conference on Electronic Computation at Purdue University in Lafayette, Ind., Aug. 31 - Sept. 2. The title of the course was "Scenario for a Third Computer Revolution in Structural Engineering."

ELECTRICAL AND COMPUTER ENGINEERING

L. T. Fitch (Assoc Prof) attended a two-week course in Tropospheric Propagation Engineering, July 27-Aug. 8 at the University of Colorado.

ELECTRICAL AND COMPUTER ENGINEERING (continued)

B. E. Gilliland (Assoc Prof) served as Chairman of the Components Session at the 1970 Joint Automatic Control Conference held at Georgia Institute of Technology in Atlanta, June 24-26. He also presented a paper entitled "Hybrid/Real-Time Computing at Clemson University," at a meeting of the Southeastern Section of the Analog/Hybrid Computer Education Users Group held at Virginia Polytechnic Institute, June 12-13.

B. E. Gilliland (Assoc Prof) and J. F. Dickey (Assoc Prof of Dairy Science) have been named principal investigators on a \$65,000 research grant awarded by the National Institute of Child Health and Human Development's Center for Population Research. The goal of this research is the control of oviduct function. Initial phases include development of instrumentation, telemetry, data acquisition and processing systems suitable for monitoring, in vivo, oviduct muscular activity. J. W. Lathrop (Prof), J. R. Hill (Assoc Prof of Animal Science) and D. M. Henricks (Assoc Prof of Biochemistry) are also participants in this investigation.

J. W. Lathrop (Prof) organized and directed a NATO-sponsored lecture series on "Large Scale Integration in Microelectronics." The series, consisting of eight lectures by European and United States' engineers, was presented during July in London and Dusseldorf. Dr. Lathrop gave the keynote lecture entitled, "The Evolution of LSI."

ENGINEERING MECHANICS

James G. Goree (Assoc Prof) attended the Air Force Materials Symposium in Miami Beach, May 18-22 and the Sixth U. S. National Congress of Applied Mechanics at Harvard University, June 15-19.

ENGLISH

Harriet Holman (Assoc Prof) has written the foreword and afterword to the recently published When I Was a Little Boy by Roswell Page.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

G. R. Carner (Asst Prof) attended the 14th International Colloquium on Insect Pathology held at the University of Maryland, Aug. 24-28.

FOOD SCIENCE

J. J. Jen (Asst Prof) attended a Food Science Seminar entitled "The Microbial Contamination of Meat and Meat Products," presented by Dr. M. Ingram, Chief of Meat Research Institute in England. This seminar was held at the University of Georgia on Aug. 17.

MATHEMATICS

J. V. Brawley, Jr., (Assoc Prof) has been invited to serve an additional term as Visiting Lecturer for the Mathematical Association of America during the academic year 1970-71. The Visiting Lecturer Program is funded by the National Science Foundation and sponsored by the Mathematical Association of America.

J. V. Brawley, Jr. (Assoc Prof) and B. J. Prochaska (Asst Prof) attended the SREB Summer Research Conference in Statistics at St. Petersburg, Fla., Aug. 2-7. Dr. Prochaska chaired one of the sections of the conference.

R. E. Haymond (Assoc Prof) has authored a paper entitled, "Discontinuities of optimal return in dynamic programming," which appeared in J. Math. Anal. Appl., Vol. 3 (1970) p. 639.

John Kenelly (Prof and Hd) has been invited to serve again on the Committee on Undergraduate Programs in Mathematics' 34 member Consultant Bureau. The Mathematical Association of America sponsors visits by the consultants to individual colleges to advise on mathematical programs.

J. K. Luedeman (Asst Prof) has authored a paper entitled, "On the embedding of compact domains," which appeared in Mathematische Zeitschrift, Vol. 115 (1970) p. 113.

K. T. Wallenius (Assoc Prof) has been invited to serve an additional term as Visiting Lecturer in Statistics for the 1970-71 academic year. Dr. Wallenius also attended the Annual Invitational Research/Technology Conference, May 13-15, at the Naval Postgraduate School, Monterey, Calif. The conference is sponsored by the Office of Naval Research.

R. C. Laskar (Assoc Prof) presented a paper entitled, "Finite Nets of Dimension three" at the International Symposium on Combinatorial Mathematics held at Chapel Hill on May 8-10. Dr. Laskar also has authored a paper entitled, "Eigenvalues of the Adjacency Matrix of Tetrahedral Graphs" published in Aequationes Mathematicae 4(1970), co-authored with R. C. Bose, University of N. C. at Chapel Hill.

SOCIAL SCIENCES

W. B. Turpin (Asst Prof) received his Ph.D. from the University of Alabama, Aug. 21. The title of his dissertation was "Intra-and extra-dimensional shifts in children as a function of old and new transfer stimuli."

T. G. Titus, (Asst Prof) received his Ph.D. from University of Louisville on Aug. 15. The title of his dissertation was "Codability and Retention."

Bernard Caffrey (Assoc Prof) spent the summer on a tropical island in the Pacific engaged in a study of high blood pressure in a native population that is undergoing rapid cultural change (Ponape, Micronesia).

SOCIAL SCIENCES (continued)

J. L. Arbena (Asst Prof) received his Ph.D. from the University of Virginia. The title of his dissertation was "The Panama Problem in Columbian History." From Aug. 2-9 Dr. Arbena attended the Thirty-ninth International Congress of Americanists in Lima, Peru.

M. W. Slann (Asst Prof) received his Ph.D. from the University of Georgia in August. The title of his dissertation was "The Political Integration of East and West Jerusalem: Arab-Jewish Community Cooperation."

CALENDAR OF CAMPUS EVENTS

Sept. 15	Tues.		Freshmen Elections.
Sept. 15	Tues.	4:00 p.m.	Dr. Hal Jonsson, Biochemistry Department, Medical University of South Carolina, will speak on "Fatty Acid Metabolism in the Ovary" in Room A-101, P&AS Bldg.
Sept. 17	Thurs.	12:55 p.m.	Agronomy Seminar - Dr. U.S. Jones, Protein Organic Waste Utilization as Feed and Fertilizer, Room A-203, P&AS Bldg.
Sept. 19	Sat.	1:30 p.m.	Football - Virginia at Clemson (Band Day).
Sept. 19- Oct. 4	Sat.- Wed.		Sponsored by the Clemson Architectural Foundation - Georgian Country Houses: From the Collection of the Royal Institute of British Architects - Rudolph Lee Gallery.
Sept. 22	Tues.	4:00 p.m.	Food Science Colloquium Series, Dr. C.S. Tang of the University of Hawaii will speak on "Benzyl Isothiocyanate of Papaya Fruit," Room F-150, P&AS Building.
Sept. 23	Wed.	4:00 p.m.	Plant Pathology and Physiology Department Seminar, Dr. George H. Hepting - "Trees and Air Pollution" - 222 Long Hall.
Sept. 24	Thurs.		Agronomy Seminar, J.R. Johnson - Relation of bulk density of acid delinted cotton seed to laboratory and field performance.
Sept. 25	Fri.		Soccer - Georgia State at Clemson.
Sept. 26	Sat.	2:00 p.m.	Football - Georgia at Athens.
Sept. 26	Sat.		Cross Country - at Stone Mountain Invitational.
Sept. 29	Tues.	3:00 p.m.	Soccer - at Western Carolina University.
Oct. 1	Thurs.		Agronomy Seminar, Dr. R.D. Hatcher-South Carolina Mountain bedrock types: distribution, composition and weathering.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 4

CLEMSON UNIVERSITY LIBRARY October 1, 1970
SOUTH CAROLINA ROOMFACULTY MEMBERS HONORED

Nine University faculty members have been selected to appear in the 1970 edition of Outstanding Educators of America.

They include: L.C. Wilcox, electrical and computer engineering; T.L. Senn, horticulture; H.H. Macaulay, economics; J.M. Stepp, agricultural economics and rural sociology; H.N. Cooledge, Jr., architecture.

Also, J.F. Andrews, environmental systems engineering; B.J. Todd, industrial management and mathematics; J.L. Lundberg, textile chemistry; S.F. Hulbert, division of interdisciplinary studies.

The Outstanding Educators of America is an annual program designed to recognize and honor those men and women who have distinguished themselves by exceptional service, achievements and leadership in education. Each year over 5,000 of our country's foremost educators are featured in this national volume.

MEETING OF LOCAL MEMBERS OF STATE EMPLOYEES' ASSOCIATION

Dr. Graydon W. Brandt, President of the Tri-County Unit of the South Carolina State Employees' Association (which includes Pickens, Oconee, and Anderson counties) has announced a special meeting in Tillman Hall auditorium on Wednesday, Oct. 7, at 7:30 p.m. The new life insurance program which has been proposed by the Association will be discussed. Mr. Larry G. Ellis, Assistant Executive Secretary of SCSEA, will bring a representative of Pilot Life Insurance Co. to explain the details of the new program, to answer questions, and to assist with applications.

Since all full time Clemson University employees are eligible for membership in the Association, all interested employees are invited to attend. State Directors of Clemson in addition to Dr. Brandt, are Mr. Jack S. Goodman, Dr. Lehman M. Bauknight, and Dr. Richard F. Nash.

BLUE CROSS OPENS ANNUAL ENROLLMENT PERIOD

Representatives of Blue Cross-Blue Shield Insurance will be on Campus September 25 through October 25, 1970. This is the annual enrollment period for group insurance available to all faculty members and other regular employees of Clemson University.

(Continued on page 2)

BLUE CROSS OPENS ANNUAL ENROLLMENT PERIOD Continued

During this enrollment period any member of the Blue Cross-Blue Shield program may make changes (additions, deletions, etc.) if desired to fit their individual and/or family needs. Initial applications will also be accepted during this period for those who desire insurance coverage through this plan.

New employees may apply for insurance anytime during their first 31 days of employment. Other employees may apply for insurance or request changes in present coverage only during the annual enrollment period, September 25 - October 25. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time.

Appointments may be made with the representatives by telephoning Mr. W.J. Stamey in the Personnel Office, Extension 2426.

COMPUTER CENTER INCREASES CAPABILITY

The University Computer Center has more than doubled its former work capacity through acquisition of new hardware, reorganization of staff and operations, and additional personnel.

The central processing unit, an IBM 360, has been upgraded to model 50, which operates three times faster than the model 40. A room with four new keypunches has been set aside for the use of anyone on campus. Last year only one keypunch was available. The Center still provides keypunch service for large programming orders.

Center personnel have been reorganized into three sections: (1) operations -- scheduling the flow of materials, key punch service, control of computer operations; (2) systems -- management of internal computer operations to maximize efficiency; and (3) programming -- providing programs generated within the Center and giving assistance to faculty and students with their own programs.

The new Manager of Operations is Alfred Griffiths (B.S., Miami University of Ohio, 1956), who comes to Clemson from North American Rockwell Corp. in Tulsa, Okla. Joel Slayton, new Manager of Systems, is a Clemson graduate (1959) formerly with Western Union in New Jersey. Charles Kirkwood, Jr., has been promoted to the position of Manager of Programming.

With less than 15 per cent of its operations time used for administrative tasks, Computer Center facilities are available to any faculty member or student in support of teaching or research activities.

FACULTY BASIC RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for Faculty Basic Research Committee grants should be in the Office of University Research not later than November 2, 1970. Application forms may be secured in the Office of University Research. Only proposals using the FBRC application form will be considered by the committee.

In the past the Committee has made awards to new faculty members initiating research, to faculty members initiating research in a new area, and in areas where other sources of support are inadequate or nonexistent.

STANDING COMMITTEES OF THE UNIVERSITY 1970-71

1. Admissions. The Dean of Admissions and Registration serves as chairman ex-officio and the Registrar is an ex-officio member. The committee makes specific recommendations to the President in cases of individual student petitions. The committee deals not only with original admission problems, but with aspects of continuing enrollment.

K. N. Vickery (Chairman, ex-officio)

B. M. Cool (For)	1971	W. W. Pennscott (Educ)	1973
B. N. Skardon (Engl)	1971	E. A. Vaughn (Text & FacSen)	1973
C. R. Smith (IM)	1971	H. H. Williamson (Arch)	1973
Eugene Park (Math)	1972	R. J. Berry (<u>ex-officio</u>)	
Aileen Prevost (Nurs)	1972	Perry Holcombe, Student Representative	
B. J. Skelton (Hort)	1972	Carol Wilson, Student Representative	
R. C. Harshman (ChE)	1973		

2. Athletic Council

R. R. Ritchie (Chairman, 1971)

J. L. Young (Arch)	1971	W. J. Lanham (AgEcon)	1973
B. J. Prochaska (FacSen)	1971	R. W. Moorman (EM)	1973
T. D. Efland (IM & TS)	1972	K. N. Vickery (Adm & Reg, Secretary)	
J. V. Brawley, Jr. (Math)	1972		

3. Curricula. Ex-officio members are the President of the Faculty Senate, the Dean of Admissions and Registration, and the Dean of the University, who acts as chairman. Faculty members of the committee are chairmen of school or college curriculum committees. The University Curricula Committee recommends to the Educational Council the addition or deletion of existing curricula and specific changes within curricula.

Victor Hurst (Chairman, ex-officio)

C. R. Freeze (Educ)	1971	W. H. Owens (SocSci)	1973
M. J. B. Paynter (Microbiol)	1971	M. L. Wolla (EE & CompE)	1973
E. Gunnin (Arch)	1972	B. J. Prochaska (FacSen, <u>ex-officio</u>)	
S. M. Luckawecki (Math)	1972	K. N. Vickery (Adm & Reg, <u>ex-officio</u>)	
Regina Thompson (Nurs)	1972	R. F. Hawthorne, Student Representative	
L. W. Gahan (RPA)	1973	T. O. Young, Student Representative	
D. W. Lyons (Text)	1973	Academic Deans	

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued

4. Advisory Committee on Ethics and Religion. This committee makes recommendations to the President concerning matters of relationship between the student body and campus and community religious organizations. Committee membership includes the Vice-President for Student Affairs, the Vice-President for Academic Affairs, the ministers of local churches, and the director of the YMCA. The committee recommends its chairman for appointment by the President.

C. E. Raynal (Chairman)

C. A. Arrington

W. T. Cox (V-P for Student Affairs)

W. E. Copenhaver

Victor Hurst (V-P for Academic Affairs)

T. C. Davis

B. E. Trent (Director of the YMCA)

Thomas Murphey

H. R. Reynolds

5. Faculty Basic Research. This committee controls expenditures of funds granted to it for use by the faculty in carrying out basic research. Committee funds include income from a gift to the University by the C. W. Kress Foundation, an annual grant from the Alumni Loyalty Fund, and a sum from NSF. Members of the faculty who wish to apply for research grants may do so directly to the committee chairman. Grants may be made for publication as well as for research itself.

R. W. Henningson, Asst. Dean of Univ. Research
(Chairman, ex-officio)

R. H. Barker (TC)	1971	Earl Carpenter (AgEd)	1973
R. C. Fox (Ent & Econ Zool)	1971	Rose Godbout (Nurs)	1973
B. E. Gilliland (EE & FacSen)	1971	C. L. Lane (For)	1973
W. E. Bachop (Biol)	1972	M. A. Wilson (B-F, <u>ex-officio</u>)	
M. G. Melaragno (Arch)	1972	Marshall White, Student Representative	
E. P. Stillwell, Jr. (Phys)	1972	Herbert Davis, Student Representative	
C. B. Caffrey (SocSci)	1973		

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued

6. Fine Arts Series. In July 1965 President Edwards appointed a Fine Arts Series Committee to assist in planning, coordinating, and publicizing these activities. By acting as a clearing agency where ideas and information can be exchanged, the Committee hopes that the cultural environment of the University community can be enhanced. It is planned to issue a master calendar of events from time to time and to maintain special announcements for the art exhibitions, the concert series, and the lecture series.

J. H. Butler (Chairman)

N. D. Camper (PlPath & FacSen)	1971	H. M. Cox (<u>ex-officio</u>)
H. G. Spencer (Chem & Geol)	1971	W. T. Cox (<u>ex-officio</u>)
J. L. Young (Arch)	1971	C. B. Green (<u>ex-officio</u>)
W. B. Barlage (ChE)	1972	H. E. McClure (<u>ex-officio</u>)
R. D. Shannon (Econ)	1972	K. N. Vickery (<u>ex-officio</u>)
W. E. West (IndEd)	1972	J. V. Brookshire, Student Representative
Melba Cather (Nurs)	1973	Louisa Rice, Student Representative
G. E. Howard (RPA)	1973	Faye L. Ruff, Student Representative
J. J. McLaughlin (Engl)	1973	

7. Graduate Council. This council recommends Graduate School policy to the President via the Dean of the University.

A. E. Schwartz, Dean of Grad. Studies & Univ. Research (Chairman)

W. C. Godley (AnSci)	1971	R. M. Allen (For)	1973
V. S. Hodges (Arch)	1971	C. W. Bolen (SocSci)	1973
A. K. Jensen (MediaCtr)	1971	H. W. Graben (Phys)	1973
G. D. Riggs (IM & FacSen)	1972	Gayle B. Sawyer, Student Representative	
A. S. Tombes (Biol)	1972	W. Larry Vick, Student Representative	
J. S. Wolf (IntStud)	1972		

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued

8. Honors and Awards. This committee nominates students for special annual awards for academic achievement and arranges the program for the annual University Honors and Awards Day.

Norman Olsen, Jr. (English, Chairman, ex-officio)

J. R. Harris (Educ)	1971	J. R. Warner (For)	1973
R. D. Shannon (Econ)	1971	J. T. Lazar (DySci)	1973
T. V. Wilson (AgE)	1971	A. M. Bloss (<u>ex-officio</u>)	
J. D. Davenport (SocSci)	1972	G. E. Coakley (<u>ex-officio</u>)	
J. D. Fulton (Math)	1972	Susan Delony (<u>ex-officio</u>)	
Rose A. Godbout (Nurs & FacSen)	1972	K. N. Vickery (<u>ex-officio</u>)	
N. R. Bauld (EM)	1973	John Paul Lombardi (Phi Eta Sigma)	
R. H. Hunter (Arch)	1973	George Savitsky (Phi Kappa Phi)	

9. Honors Program Council. This council recommends policy (including curricula and standards of admission) concerning the University Honors Program.

Norman Olsen, Jr. (English, Chairman)

T. E. Douglass (Engl)	1971	B. E. Gilliland (EE & CompE, FacSen)	1973
J. D. Fulton (Math)	1971	Elizabeth Hall (Nurs)	1973
J. V. Reel (Hist)	1971	Sarah Walker (RPA)	1973
Peter Lee (Arch)	1972	C. B. Green (<u>ex-officio</u>)	
M. A. Packer (Elem & SecEd)	1972	K. N. Vickery (<u>ex-officio</u>)	
R. D. Shannon (Econ)	1972	J. C. Wells, Student Representative	
W. E. Bachop (Biol)	1973	Janice Wilson, Student Representative	

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued

10. Improvement of Undergraduate Teaching. A standing committee, appointed in 1966 for the first time, to recommend ways and means of improving undergraduate teaching and undergraduate educational programs.

Ruth Hays (1971, Biology & Faculty Senate, Chairman)

C. O. Caskey (Engl)	1971	J. L. Stevenson (RPA)	1973
R. H. Barker (Text)	1972	Paul Batson, Pres., Sr. Class	
D. E. Maurer (IndEd)	1972	Jerry Hough, Pres., Jr. Class	
Regina Thompson (Nurs)	1972	Perry Mize, Pres., Soph. Class	
John Acorn (Arch)	1973	Student Senate Appointee	
S. M. Luckawecki (Math)	1973		

11. Library. A faculty committee (with the Director of the Library as an ex-officio member) which recommends library policy to the Dean of Undergraduate Studies. The committee elects its chairman.

D. R. LaTorre (1971, Math, Chairman)

W. E. Castro (EM)	1971	R. E. Knowland (Arch)	1973
J. A. Hash (Educ & FacSen)	1971	R. E. Schoenike (For)	1973
Opal Hipps (Nurs)	1972	J. M. Wannamaker (IM)	1973
M. W. Jutras (Agron)	1972	Gordon Gourlay (<u>ex-officio</u>)	
H. H. Wilson (CrE)	1972	Bill Evans, Student Representative	
R. J. Calhoun (Engl)	1973	Mary Lou Hockenberry, Student Representative	

12. Patent Committee. This committee makes recommendations to the President concerning all University patent matters in accord with the Patent Policy as printed in the Faculty Manual.

M. A. Wilson (Chairman, ex-officio)

K. R. Helton (B-F)	1971	E. B. Rogers (AgE & FacSen)	1973
Eugene Harrison (ME)	1971	T. D. Efland (<u>ex-officio</u>)	
C. M. McHugh (EngSer)	1971	O. B. Garrison (<u>ex-officio</u>)	
M. J. Skove (Phys)	1972	Stan Nicholas (<u>ex-officio</u>)	
C. E. Hood (AgE)	1973	S. F. Hulbert (<u>ex-officio</u>)	

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued

13. Safety and Fire Prevention Committee. This committee will counsel and support the University Safety Coordinator (Secretary to the Committee) and assist in the development of safety policies and programs.

C. E. Littlejohn (Chairman)

W. A. Moore (PhysPlant)	1971	W. E. Berry (Personnel, <u>ex-officio</u> , Secretary)
E. H. McCarter (B-F)	1971	J. E. Hair (MedCenter, <u>ex-officio</u>)
D. P. Miller (Phys)	1971	N. R. Page (AgChem, <u>ex-officio</u>)
M. K. Richardson (EM & FacSen)	1971	J. W. Weeden (PhysPlant, <u>ex-officio</u>)
J. P. Burns (CommCenter)	1972	J. B. McFadden (Athletic, <u>ex-officio</u>)
K. S. Landers (Chem)	1972	Mike Heath, Student Representative
A. D. Lewis (ME)	1973	

14. Schedule. A committee which develops each semester the master schedule of courses taught. Each school or college has appropriate representation.

K. N. Vickery (Chairman)

H. D. Adams (SocSci)	C. M. McGee (Engl)
W. C. Bowen (Educ)	C. M. McHugh (EngrSer)
D. W. Bradbury (ME)	J. H. Mozley (USA)
F. A. Close (Econ)	C. W. Ulbrich (Phys)
J. H. Couch (IE)	R. F. Nowack (EM)
B. M. Cool (For)	E. B. Rogers (AgE)
C. C. Davis (IM)	J. R. Salley (Chem)
E. A. Gunnin (Arch)	I. A. Trively (CE)
R. C. Harshman (ChE)	J. V. Walters (Text)
M. R. Koldyke, Jr. (USAF)	J. B. Whitney (Biol)
John LaGrone (Math)	J. B. Burroughs, Student Representative
H. J. Lefort (CrE)	Ellen Calhoun, Student Representative
W. R. Mattox (Adm)	

STANDING COMMITTEES OF THE UNIVERSITY 1970-71 Continued15. Special Advisory Committee for Disposal of Poisonous Chemicals

N. R. Page (AgChem, Chairman)

Henry Polk (Chem)

Ralph Collins (Phys Plant, ex-officio)

J. J. Porter (TC)

Henry Dupre, Student Representative

16. Special Advisory Committee on Use of Radioactive Materials

J. H. Austin (1972, Chairman)

W. K. Willard (Zool)

1973

R. W. Henningson (Asst. Dean of Univ.
Research, ex-officio)17. Traffic and Parking Committee

Ralph Collins (Chairman)

J. G. Guggino (StuAffairs)

Rose Godbout (Nurs & FacSen) 1973

H. W. Graben (Phys)

1972

DEGREES AWARDED 1969 - 70

	<u>Associate</u>	<u>Bachelor's</u>	<u>Master's</u>	<u>Doctor's</u>
Agriculture and Biological Sciences		129	45	11
Architecture		63	3	
Education		200	57	
Engineering		225	32	13
Forest and Recreation Resources*		28		
Industrial Management and Textile Science		201	17	
Liberal Arts		133	3	
Physical and Mathematical Sciences		117	26	13
Nursing	<u>17</u>	—	—	—
	<u>17</u>	<u>1,096</u>	<u>183</u>	<u>37</u>
Total Degrees Awarded 1969-70	1,333			

*College of Forest and Recreation Resources established July 1, 1970

ADMINISTRATION

President Robert C. Edwards presided at the banquet session Sept. 15 of the fourth annual S.C. Governor's Conference on Water Resources held in Columbia Sept. 15 - 16. Dr. Edwards introduced the main speaker, U.S. Senator Jennings Randolph of West Virginia, chairman of the Senate Committee on Public Works.

President Edwards also participated in a conference for 550 top-level management personnel in the federal government's executive branch in Washington, D.C., Sept. 21 - 22. "The Federal Management Improvement Conference" focused on the most pressing management problem facing government administrators. "Bridging the Communications Gap" was the general theme of the panel on which President Edwards served.

AGRICULTURAL ENGINEERING

D. G. Dickson (Res Asst) presented a paper entitled "Application of a Data Acquisition System to the Collection and Reduction of Data in Agricultural Engineering" at the Annual Meeting of the American Society of Agricultural Engineers in Minneapolis, Minn. July 7-10. This paper was co-authored by T. H. Gerner (Prof).

B. K. Webb (Assoc Prof) presented a paper entitled "Development of an Over-the-Row Peach Harvester" at the Annual Meeting of the American Society of Agricultural Engineers in Minneapolis, Minn., July 7-10. This paper was co-authored by C. E. Hood (Assoc Prof), W. H. Jenkins and C. D. Veal (former Res Assts).

J. T. Ligon (Assoc Prof), A. W. Snell (Prof and Hd) and W. L. Vick (Grad Stu) attended a Symposium on Graduate Education in Agricultural Engineering sponsored by the American Society of Agricultural Engineers and supported by the National Science Foundation held at Minneapolis, Minn., July 6-7. A. W. Snell presided at one of the sessions.

J. R. Lambert (Assoc Prof) is currently on sabbatical leave studying at the State University, Wageningen, The Netherlands, from Apr. 1 to Nov. 1, 1970.

T. H. Gerner (Prof) is spending a year with Deere & Company at Moline, Ill. under the ASEE-Ford Foundation Program for Residencies in Engineering Practice.

ANIMAL SCIENCE

D. R. Lamond (Visiting Prof), C. F. Lam (Grad Stu) and J. R. Hill, Jr. (Assoc Prof) attended the annual meeting of the American Society of Animal Science at University Park, Pa., and presented respectively the following papers: "Increasing the Calf Crop in Northern Australia," "Training of Foreign Graduate Students from Developing Countries," "Causes of Reproductive Failure in Beef Cattle."

Dr. Hill also attended the joint meeting of the Technical Committees of the Regional Beef Cattle Breeding Projects held at the U. S. Meat Animal Research Center in Clay Center, Neb. and presented the annual report on S. C. Experiment Station Project S-10.

CHEMICAL ENGINEERING

W. B. Barlage (Assoc Prof) and J. A. Caskey (VPI) presented a paper entitled "Experimental Evidence that Water has No Time-Dependent Surface Tension" at the Third Joint International AIChE-IMIQ meeting in Denver, Colo., Aug. 30 - Sept. 2. This paper was also published in Industrial and Engineering Chemistry Fundamentals, Vol. 9, No. 3, 1970.

J. W. Hall (Assoc Prof) was speaker for the Sept. Meeting of the Western North Carolina Section of AIChE in Brevard, N. C. The topic was "Trends in Chemical Engineering Education."

The Chemical Engineering Department has received unrestricted grants of \$5000 from Union Carbide Corporation and \$3000 from the Celanese Corporation of America.

CHEMISTRY AND GEOLOGY

J. L. von Rosenberg, Jr., (Assoc Prof) received a grant of \$29,300 from the National Science Foundation for research, entitled, "Reaction of Olefins with Metal Carbonyls."

F. B. Brown (Assoc Prof) attended the 25th Symposium on Molecular Structure and Spectroscopy, at Ohio State University, Columbus, Ohio, Sept. 8-12. He presented a paper on "The Determination of Barriers to Linearity in the Three Nitrosyl Halides (NOF, NOCl, and NOBr) from Infrared Spectral Data," with Dr. G. F. Adams (former Grad Stu) of the Department of Chemistry, University of North Carolina at Chapel Hill.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

W. C. Laffoday (Dir, Professional Development) addressed the Anderson Kiwanis Club on Sept. 3. His Management-Motivation address was entitled, "Where Do We Go From Here?" Mr. Laffoday also attended the annual conference of the Southeastern Community Development Association held in Roanoke, Va., June 9-11. He was selected as South Carolina delegate to the Association's executive board for 1970-71.

COOPERATIVE EXTENSION SERVICE

W. L. Northern (Prin spec, Dairy Science) has received a Ph.D. degree from the University of Minn. His major was in dairy husbandry with minors in bacteriology and animal physiology.

F. H. Smith (Assoc Spec, Plant Pathology) received his Ph.D. degree from the University of Georgia last June. Majoring in plant pathology, his research leading to his dissertation was a study of a plant parasitic nematode in S. C., Hoplolaimus columbus Sher 1963.

These awards bring to 21 the number of terminal degrees earned by the current administrative and specialist staff of the Cooperative Extension Service. Five additional persons are working toward completion of terminal degrees.

COOPERATIVE EXTENSION SERVICE (continued)

J. B. Copeland (Assoc Dir) has been appointed director of the Extension Journal, the professional journal of Cooperative Extension. He will be one of nine directors serving from throughout the United States.

ECONOMICS

Bruce Yandle, Jr., (Asst Prof) has an article, "Externalities and Highway Location," accepted for publication in the October issue of Traffic Quarterly.

ELECTRICAL AND COMPUTER ENGINEERING

J. C. Martin (Prof) attended an advanced course in Probabilistic Models, M.I.T., Aug. 24 through Sept. 4.

R. W. Gilchrist (Prof) and E. H. McGinnis (Grad Stu) presented a paper entitled "Modified Gradient Method in Economic Operation of Power Systems" at the SCI Conference in Charlotte, N. C., on Aug. 14.

ENVIRONMENTAL SYSTEMS ENGINEERING

John Austin (Prof) attended a meeting called by the U. S. Public Health Service in Washington, D. C. on Sept. 9-10 concerned with Environmental Health Occupation Titles and Environmental Health Staffing Guides.

A. R. Abernathy (Assoc Prof) attended the annual meeting of the American Society of Limnology and Oceanography held at Kingston, R.I., Aug. 26-29. He presented a paper entitled "Microbial Ecology of Organic Detritus in a Lake," co-authored by W. S. Brewer (Grad Stu), L. W. Blakely (Grad Stu) and M. J. B. Paynter (Assoc Prof and Chairman of Microbiology).

A. R. Abernathy (Assoc Prof) participated in the Gordon Research Conference "Environmental Science: Water" held at New Hampton, N. H., Aug. 30 - Sept. 4.

J. F. Andrews (Prof and Hd) and T. M. Keinath (Asst Prof) attended the 160th National American Chemical Society Meeting, Chicago, Ill., Sept. 16. Dr. Andrews presented a paper entitled "Kinetic Models of Biological Waste Treatment Processes."

J. H. Austin (Prof) had an article, "Training--How To Do It" in the July issue of the Journal of the American Water Works Association. He also edited the proceedings of a conference entitled "Educational Systems for Operators of Water Pollution Control Facilities" which has just been published.

J. M. Glennon, Jr., (Assoc Dir of Continuing Education) attended a short course entitled "Operator Instructor Development" sponsored by the FWQA in Le Plate, Md., Aug. 24-28.

ENVIRONMENTAL SYSTEMS ENGINEERING (continued)

T. M. Keinath (Asst Prof) has received a \$8717 grant from J. P. Stevens & Co., Inc., to conduct the first phase of an extensive study entitled "Development of Process Technology for the Treatment of Textile Finishing Wastewaters."

FOOD SCIENCE

W. P. Williams (Prof and Hd) and J. C. Acton (Asst Prof) attended the Poultry Science Association's meeting in Knoxville, Tenn., Aug. 31 - Sept. 4. Dr. Williams presented a paper entitled "The Effect of Dietary Fats on the Fatty Acid Distribution of Chicken Adipose Tissues."

A paper entitled "Relationship between Plasma Progesterone Concentrations and Early Embryonic Mortality in the Cow" was presented by D. M. Henricks (Assoc Prof) while attending a meeting of the Society for the Study of Reproduction in Columbus, Ohio, Sept. 8-12.

J. J. Jen (Asst Prof) attended the 160th National Meeting of the American Chemical Society and attended a symposium on "Biochemistry of Plant Pigments," Sept. 13-19 in Chicago, Ill.

INDUSTRIAL MANAGEMENT

B. J. Todd (Prof) is serving as Program Chairman for the Sixth Annual Meeting of the Southeastern Chapter of the Institute of Management Sciences which is being held at the Clemson House, Nov. 5-6.

J. A. Turner (Asst Prof) is serving on the Professional Development and Scholarship Committee of the S. C. Association of Certified Public Accountants.

Chester R. Smith (Assoc Prof) recently received the Legion of Merit Award at Ft. McLellan, Ala., where he was retired from the U. S. Army with the rank of Colonel.

MUSIC

Edith B. Card (Inst) had an article "Approach to Reading Music in the Elementary Classroom," published in the August edition of the South Carolina Musician.

PHYSICS

J. R. Ray (Asst Prof) published an article in the April issue of the Acta Physica Polonica, Vol. A37, entitled "Remarks on Newton's Third Law."

L. W. Ellison (former Grad Stu), T. N. O'Neal (former Grad Stu) and R. L. Chaplin (Assoc Prof) published an article in the May issue of Physics Letters, Vol. 31A, entitled "A Technique for Resolving the Low Temperature Recovery Stage of Magnesium."

PHYSICS (continued)

F. J. Keller (Assoc Prof) published an article in the Journal of Physics and Chemistry of Solids, Vol.33, entitled "Recombination of Luminescence in NaCl."

A. L. Laskar (Assoc Prof) was associated with the Materials Science Division of the Argonne National Laboratory in Illinois as a visiting scientist for part of the summer, May 10-20 and July 15-Aug. 21. Dr. Laskar also gave an invited talk entitled "Isotope Effects on the Diffusion in Solids" in the Dept. of Physics at the University of Ill. on July 30.

PLANT PATHOLOGY AND PHYSIOLOGY

Paul A. Backman, a native of California has joined the research staff to conduct research on bacterial diseases of peaches. Dr. Backman came to Clemson from post doctoral study at N. C. State University. He received his doctoral degree from the University of California at Davis.

POULTRY SCIENCE

The annual meeting of the Poultry Science Association was held at the University of Tennessee, Knoxville, Aug. 31 - Sept. 4.

Jackson B. Ramsey (Grad Asst) presented a paper, co-authored by M. A. Boone (Prof), entitled "A Special Incubator for Growing Chick Embryos In Ovo and In Vitro."

Juan Solis (Asst Prof) presented a paper, co-authored by B. D. Barnett (Prof and Hd) entitled, "Effectiveness of Gentomycin Sulfate Against Paracolobactrum arizonae Infection of Young Turkeys."

D. E. Turk (Assoc Prof) presented a paper, co-authored by B. D. Barnett entitled "Cholesterol Content of Market Eggs."

J. F. Dickey (Assoc Prof of Dairy Sci) presented a paper, co-authored by S. R. North (former Grad Asst) and M. A. Boone (Prof) entitled, "An Electron Microscope Study of Rooster Spermatozoa Undergoing Maturation in the Epididymis and Vas Deferens."

D. W. Creed (Grad Asst) presented a paper, co-authored by J. F. Dickey and M. A. Boone entitled "An Electron Microscope Study of Turkey Spermatozoa."

J. B. Cooper (Assoc Prof) presented a paper entitled "Thickness of Turkey Egg Shell Membranes and Hatchability."

J. E. Jones (Asst Prof) presented a paper entitled "Effect of Dietary Energy and Environmental Temperature on Feed Consumption of Large White Turkey Hens."

M. A. Boone presented a paper, co-authored by J. T. Parker (former Grad Asst) and J. E. Jones (Asst Prof) entitled "Effect of Thermal Stress on Adult Male Turkeys."

POULTRY SCIENCE (continued)

C. D. Humphrey (Grad Asst) presented a paper, co-authored by D. E. Turk, entitled "An Electron Microscope Investigation of Chick Intestinal Epithelial Cells."

Juan Solis presented a paper entitled "A Rapid Method of Obtaining Clean Poultry Coccidia for Biological Studies."

B. D. Barnett served as chairman of the resolutions committee and is associate editor of the official journal of the Association, Poultry Science.

M. A. Boone (Prof) attended the World's Poultry Congress held in Madrid, Spain, Sept. 6-12. This is a combination scientific and trade association meeting with technical sessions and an exhibition of production and processing equipment. He presented a paper, co-authored by W. T. Erwin (former Grad Asst in Electrical Engineering) and B. D. Barnett (Prof and Hd) entitled "Response of the Developing Chick Embryo to Light." Dr. Boone is visiting points of interest in Europe before returning to Clemson.

TEXTILES

J. C. Hubbard, Jr. (Prof) presented a paper before the 12th Canadian Textile Seminar International at Kingston, Ontario on Aug. 26, covering recent developments on modern textile weaving machinery.

D. W. Lyons (Assoc Prof) participated as a lecturer in a short course on Industrial Noise Control sponsored by the Instrument Society of America in Greenville on Sept. 17. Dr. Lyons was appointed Associate Director for Technical Operations of the recently organized Textile Industries Group of the Instrument Society of America.

C. W. Roberts (Assoc Prof) attended the fall meeting of the American Chemical Society in Chicago on Sept. 14-18. There he assumed Chairmanship of the Division of Organic Coatings and Plastics Chemistry and joined the College Chemistry Consultants Service. Also he attended, as Executive Committee Member, the meeting of the Advisory Committee on the Chemical Technician Curriculum Writing Project.

R. H. Barker (Assoc Prof) delivered lectures on "Mechanism of interaction between P/N Flame Retardants and Cellulose" to FMC Corp. (Central Research) in Princeton, N.J., on Aug. 20; to the National Bureau of Standards, in Gaithersburg, Md., on Aug. 21; and to Emery Industries in Cincinnati, Ohio on Sept. 4.

Dr. Barker attended the ACS meeting in Chicago, Ill., Sept. 13-18. On Sept. 14, he attended the program committee meeting, Cellulose, Wood, and Fiber Division. Dr. Barker presented a paper, "Thermochemistry of Flame Retardant Cotton" with K. Yeh (Post Doctorate Research Fellow) on Sept. 15. On Sept. 15, he introduced the Anselme Payen Award winner, Dr. W. A. Reeves. On Sept. 17, he presented a paper, "Pyrolysis and Combustion of Cellulose II. Mechanism of Flame Retardation in the Presence of Triphenyl Phosphate." Also on Sept. 17, Dr. Barker organized and chaired a symposium in Student Research in Cellulose Chemistry.

VOCATIONAL EDUCATION MEDIA CENTER

R. T. Benson (Asst Prof) served as group chairman for the Agricultural Mechanics Education Workshop at Virginia Polytechnic Institute, Aug. 3-7.

A. K. Jensen (Assoc Prof and Dir) served on an eight-member committee at Oklahoma City, Okla. Aug. 24-25, in defining the parameters for a paper entitled "Professional Development in Vocational Teacher Education." The paper will be presented to vocational educators at three national seminars during October.

A. K. Jensen presented a paper to the Poultry Science Association at the University of Tennessee, Aug. 31 - Sept. 4, entitled "Effective Use of Audio-Visual Aids in Poultry Science."

ZOOLOGY

H. A. Loyacano (Asst Prof) met with representatives of Duke Power Company for conferences concerning water quality data from Lake Keowee in Charlotte, N. C. on Sept. 8.

William Bachop (Asst Prof) in collaboration with Jackson Ramey (Grad Stu) of the Department of Dairy Science, presented a paper at the Developmental Biology session of the American Society of Zoologist's meeting held at Indiana University August 24 in conjunction with the annual meeting of the American Institute of Biological Sciences.

E. D. Brodie, Jr. (Asst Prof) presented a paper "Two more toxic salamanders: Ambystoma maculatum and Cryptobranelus alleganiensis," at the annual meeting of the Society for the Study of Amphibians and Reptiles in Kansas City, Mo., Aug. 27-30. Dr. Brodie received a summer grant-in-aid from Highlands Biological Station for a study on "Salamander Skin Toxins."

S. A. Gauthreaux, Jr. (Asst Prof) presented a paper "The flight directions of passerine migrants in daylight and darkness: A radar and direct visual study at an International Symposium on Animal Orientation and Navigation held at Wallops Island, Va. from Sept. 9-13. The Symposium was sponsored by the American Institute of Biological Sciences, the National Aeronautics and Space Administration, and the Smithsonian Institution.

A. S. Tombes (Assoc Prof) has been appointed to the Board of Trustees at the Highlands Biological Station, Inc., Highlands, N. C.

MINUTES OF THE GRADUATE COUNCIL, SEPTEMBER 11, 1970

The Graduate Council met in Room 215, Brackett Hall at 3:00 p.m. The following members were present: Mrs. Gayle Sawyer, Mr. Larry Vick, R. M. Allen, C. W. Bolen, H. W. Graben, W. C. Godley, A. K. Jensen, G. D. Riggs, A. S. Tombes, and J. S. Wolf. Dean H. E. McClure and Prof. G. C. Means were also present. Absent was V. S. Hodges.

MINUTES OF THE GRADUATE COUNCIL, SEPTEMBER 11, 1970 (continued)

Minutes of the last meeting were approved.

Dean Schwartz introduced the new members to the Council and presented a general statement of policy for the year's operations.

A motion was made by Graben and seconded by Jensen that the language requirement for the M.S. degree in Physics be removed. Motion passed unanimously.

A statement to be published in the catalog describing the graduate language requirements and alternatives was presented for discussion by Dean Schwartz. A motion that the statement, with slight editorial modifications, be accepted was made by Graben, seconded by Riggs and passed by the Council unanimously.

It was suggested by Dr. Graben that a subcommittee be appointed to continue evaluating the language requirements in an attempt to list the specific broadening areas and to determine if the raw scores on the GSFLT are adequate to determine a language proficiency.

The Graduate Council would like to extend to Dean H. M. Cox a note of appreciation for his help in preparing the new language policy statement which will be placed in the Graduate Catalog.

After an informative discussion concerning the requirements for "research in absentia" Dean Schwartz appointed a subcommittee to study the subject in detail and to report back to the Council its findings. (Hodges, Riggs, Graben, and Wolf as Chairman).

Dean McClure, from the College of Architecture, presented for discussion the criteria for admission to the degree programs of Architecture, City and Regional Planning and Visual Studies. Dr. Jensen made a motion that these admission standards be accepted; it was seconded by Graben and passed unanimously by the Council.

The following new courses were approved by the Graduate Council:

Bioengineering 860
Plant Pathology 800, 801, 808, 809, 806, 807
Animal Physiology 807

The Council adjourned at 4:55.

CALENDAR OF CAMPUS EVENTS

Oct.	1	Thurs.		Agronomy Seminar - Dr. R.D. Hatcher, South Carolina Mountain bedrock types: distribution, composition, and weathering.
Oct.	1	Thurs.	12:00 noon	Dr. C.E. Hood and Dr. B.K. Webb will speak on "Mechanical Harvesting in the 1970 Decade," during a luncheon meeting of Sigma Xi at the Holiday Inn.
Oct.	2	Fri.	2:00 p.m.	Freshman Football - Georgia at Athens.
Oct.	3	Sat.	2:00 p.m.	Football - Georgia Tech at Atlanta.
Oct.	3	Sat.		Cross Country - Georgia Tech.
Oct.	3	Sat.		Soccer at the Citadel.
Oct.	5	Mon.		Cross Country - at Furman.
Oct.	7	Wed.	4:00 p.m.	Agronomy Seminar - Mr. Allan V. Whitney, Norfolk, Va Agronomist, Royster Co.; Distribution of Multi-Nutrient Plant Food, Room A203 P&AS Building.
Oct.	8	Thurs.	7:30 p.m.	Freshman Football - South Carolina at Columbia.
Oct.	8	Thurs.	4:00 p.m.	Agronomy Seminar - Dr. V.S. Griffin Jr., and Dr. D.S Snipes; Change from bedrock to saprolite in the Piedmont region of South Carolina.
Oct.	9	Fri.		Alumni National Council - Clemson Foundation meets.
Oct.	9	Fri.		Tigerama - Football stadium.
Oct.	9	Fri.		Homecoming Dance - Ike & Tina Turner.
Oct.	9	Fri.		Soccer - at Emory Invitational (2 days).
Oct.	10	Sat.	1:30 p.m.	Football - Auburn at Clemson (Homecoming).
Oct.	10-	Sat.-		Sponsored by the Clemson Architecture Foundation, The Five Winston-Salem Printmakers -- Rudolph Lee Gallery.
Oct.	31	Sat.		
Oct.	10	Sat.		CDA Concert - Coliseum, Jerry Butler.
Oct.	10	Sat.		Cross Country - USC, Duke at Durham.
Oct.	12	Mon.		Cross Country - at N.C. State.
Oct.	14	Wed.		Ciro and his Ballet Flarrenco.

CALENDAR OF CAMPUS EVENTS Continued

- Oct. 14 Wed. 4:00 p.m. Physics Seminar - Dr. Robert O. Pepin, RESA National Lecturer from the University of Minnesota will discuss his research project - Room 101 Kinard Laboratory of Physics.
- Oct. 14 Wed. 7:30 p.m. Dr. Robert O. Pepin, RESA National Lecturer from the University of Minnesota, will present a lecture entitled "Moon & the Meteorites: A Look at Extra-terrestrial Matter." Room 100 Lowry Hall.
- Oct. 15 Thurs. IM/TS Seminar Speaker, Mr. Ted Johnson, Director of Economic Research, Florida Power & Light Co., Miami, Florida.
- Oct. 15 Thurs. 8:00 p.m. Clemson Players - Daniel Hall Theatre.
- Oct. 15 Thurs. 4:00 p.m. Agronomy Seminar - Dr. P.K. Birkhead, Changes from bedrock to saprolite in the Coastal Plain region of South Carolina.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 5

October 15, 1970

SCHOLARSHIP SELECTION POLICIES AND PROCEDURES

Clemson University undergraduate scholarships are granted according to the following policies and procedures. Departure from such policies and procedures should be made only with the expressed consent of the Dean of the University.

A. Policies

1. Responsibility for the coordination of the selection of scholarship recipients is vested in the Chairman of the Honors and Awards Committee.
2. The University Honors and Awards Committee will select the recipients of all scholarships unless the contractual agreement with the donor provides for selection by that donor. Recommendations of the various deans and department heads will be solicited and to the extent possible will be followed.
3. Administration relating to the award of scholarships will be the responsibility of the Student Financial Aid Office. Included in this responsibility is:
 - a. Receipt of all scholarship applications.
 - b. Screening of applications to ascertain academic backgrounds.
 - c. Collection of financial need data (where appropriate).
 - d. Maintaining a file of (scholarship) contracts between the University and donors.
 - e. Determining -- in advance, each year -- the availability of funds in support of the various scholarships.
 - f. Requesting of each academic dean opinions as to the qualifications of those applicants seemingly best meeting the prerequisites for receipt of the various scholarships.
 - g. Assuring for the University Honors and Awards Committee that the various students recommended for receipt of scholarships are properly qualified under the terms of the written contracts with the appropriate donors.
 - h. Presenting the names of the finally screened applicants to the University Honors and Awards Committee for approval, substitution, disapproval, etc.
 - i. Notifying all recipients of their awards (with copies of the letters to the appropriate deans and department heads and chairmen of Honors and Awards Committees within the colleges or schools).

(Continued on page 2)

SCHOLARSHIP SELECTION POLICIES AND PROCEDURES (continued)

- j. Notifying donors of the identity of the various recipients.
- k. Preparing vouchers for stipends of the various recipients and delivering those stipends when received from Accounting.
- l. Specifically excluded are those transactions, etc. having to do with recipients of 'donor-selected' scholarships.

B. Guidelines

- 1. All entering freshmen being considered for a scholarship awarded by the University must have a minimum predicted grade-point ratio of 2.0 for their freshman year.
- 2. Students already enrolled in the University and transfer students who are being considered for a scholarship must have a minimum cumulative grade-point ratio of 2.0.
- 3. Where financial need is an element or prerequisite to selection, the University and its several subdivisions will utilize the services and reports of College Scholarship Service as a guide for need determination.
- 4. No single student shall receive any combination of University-awarded scholarship and financial assistance in excess of annual costs (educational and allied). Specifically excluded from this are the various 'donor-selected' scholarships and other aid (normally awarded by industry).
- 5. The general practice will be that 'renewable' scholarships will be renewed so long as the recipient remains eligible -- rather than selecting an alternate recipient.
- 6. No scholarship will be awarded until the University has received assurance that it will be funded for the academic year in question.
- 7. Under no circumstances will any person be notified that he has been awarded a scholarship (or even of the possibility of being awarded a scholarship) until the University Honors and Awards Committee has made or approved the selection and the Student Financial Aid Office has written the recipient a letter of notification.
- 8. Announcement of scholarship awards contained in the annual Honors and Awards Day programs will relate to those scholarships awarded for the academic year then in progress rather than the coming academic year.
- 9. In order to provide continuity of operation during the usual summer breaks (i.e., that approximate period from early May through mid-August which finds many faculty members not on campus), scholarships will be administered and recipients chosen during those times as the Chairman of the Honors and Awards Committee deems most appropriate to each individual situation.

SCHOLARSHIP SELECTION POLICIES AND PROCEDURES (continued)

C. Procedures

1. Beginning in January of each year all eligible students or potential students may apply to the Student Financial Aid Office for any type of scholarship assistance desired for the coming academic year. Consideration may be afforded only those applications submitted directly to that office -- any scholarship applications filed with any of the individual colleges, schools, and/or departments should promptly be transmitted to the Student Financial Aid Office. Normally, applications will be completed prior to February 1st.
2. On or about March 1st of each year the Student Financial Aid Office will collate the various scholarship applications for the coming academic year into categories pertaining to the various curriculums and/or colleges and schools, compare them with available scholarship openings, and prepare preliminary selection listings of those persons seemingly best suited to fit the openings.
3. Preliminary selection listings will then be reviewed by the Chairman of the Honors and Awards Committee or such representative as he desires to designate.
4. Listings will be forwarded to the appropriate deans on or about March 15th for opinions, comments, and recommendations. These should be furnished within ten to fifteen days in order that the Honors and Awards Committee may take final action on the list not later than April 1st.
5. Upon return from the various deans, Student Financial Aid Office will submit lists and final recommendations to the University Honors and Awards Committee for final approval.
6. Following such final approval Student Financial Aid Office will then dispatch the various letters of notification to recipients and donors (with copies to the appropriate deans and department heads and chairmen of Honors and Awards Committees within the colleges or schools).
7. As a cross-check, deans of the colleges and schools will forward to the Student Financial Aid Office two weeks prior to the start of each semester a consolidated listing of their students who will receive scholarships for that semester as well as the titles of the scholarships involved.
8. Student Financial Aid Office will voucher the necessary stipends or -- when appropriate -- request Bursar to credit individual student accounts with stipends.
9. Student Financial Aid Office will disburse stipends to recipients. (It should be noted that funds in support of some University scholarships are not made available by donors until after start of each academic year; in such cases, none of the above dates and deadlines will apply -- procedures are effective only as the scholarships actually become available.)

SCHOLARSHIP SELECTION POLICIES AND PROCEDURES (continued)

D. R. F. Poole Alumni Scholarships

1. The Poole Alumni Scholarships are administered directly by the University Honors and Awards Committee under policies and procedures which are determined by the Committee and which are concurred in by the Alumni National Council.

FACULTY-STAFF INFLUENZA VACCINE CLINIC

The annual influenza vaccine clinic for faculty and staff and their dependents will be held from 4:30 P.M. to 6:00 P.M. on Tuesday, October 20, 1970. This will be in Room 101 of the Physics Building. There will be a charge this year of \$2.00 per person. This increase is due to a sharp increase in the cost of the vaccine. The only contraindication to taking the vaccine is acute illness with fever or allergy to eggs. The new vaccine is highly purified and supposed to cause less reactions.

ANIMAL SCIENCE

D. L. Handlin (Asst Prof) attended the College Swine, Sheep, and Beef Cattle Feed Conference Board Meeting at Auburn, Ala. Sept. 17-18 and presented a paper on "Protein Levels for Swine."

D. R. Lamond (Visiting Prof) visited the University of Wisconsin in Madison Sept. 7 and presented a paper entitled "Follicular Phase of the Estrous Cycle." Dr. Lamond also attended the annual meeting of the Society for the Study of Reproduction at Ohio State University in Columbus Sept. 8-11 and presented a paper with R. G. Gaddy entitled "Progesterone Concentrations in Multiple Ovulated Beef Heifers."

ARCHITECTURE

At the 1970 National Convention of Tau Sigma Delta Honor Society in Architecture and Allied Arts held in Boston, Dean Harlan E. McClure was elected Grand Chapter Master and Joseph L. Young (Prof) was elected Grand Chapter Recorder. The national headquarters for the fraternity will be located at Clemson University until 1972.

The American Hot Dip Galvanizers Association representing the galvanized steel after fabrication industry in North America presented a technical seminar, Sept. 17 at the Clemson House to the practicing architects, engineers, and upper year level students of the College of Architecture.

In May, R. D. England (Assoc Prof) presented a paper to the general session of the Mediaeval Institute at University of Michigan on "The Sacred Geometry of the Cathedral at Chartres."

ARCHITECTURE (continued)

John Jacques, John T. Jeffers, and Samuel T. McCleskey, 1970 Clemson Architectural Graduates, received three of the four competition awards from the National Institute for Architectural Education for their 1970 Architectural Theses. Mr. Jacques won first runner up for his thesis "A Comprehensive Residential Rehabilitation Center for Mentally Alert Multiple Handicapped Adults." Mr. Jeffers and Mr. McCleskey received Honorable Mention for their respective theses "A Summer Institute of Visual and Craft Studies for Clemson University at Caesar's Head, South Carolina," and "Mini-Educational Park for Sea Pines Plantation."

Joseph L. Young (Prof) presented to the "Friends of Miracle Hill" the design studies made by the summer school studio for the master plan and architectural development of the Miracle Hill School on Sept. 29 at the Greenville Library.

CHEMISTRY AND GEOLOGY

J. W. Huffman (Prof) attended the National Meeting of the American Chemical Society, Sept. 13-18, Chicago, Ill. and presented a paper, "Synthesis of Pro-aporphine Alkaloids," with C. E. Oplinger (former Grad Stu) co-author.

COLLEGE OF ENGINEERING

L. G. Rich (Dean) was a member of a Federal Water Quality Administration site visit team to Drexel Institute of Technology (Philadelphia, Pa.), Worcester Institute of Technology (Worcester, Mass.) and Harvard University (Cambridge, Mass.) on Sept. 20-24.

L. G. Rich and J. L. Edwards (Asst to the Dean) attended a chapter officers' planning conference of the S. C. Society of Professional Engineers in Columbia on Sept. 10. Dean Rich spoke to the group on "Career Guidance in Engineering." Prof. Edwards spoke on the JETS program in South Carolina.

COLLEGE OF FOREST AND RECREATION RESOURCES

W. H. Davis McGregor (Dean) talked to the Rotary Club of Clemson at its Sept. 14 meeting on the topic "The Goals and Objectives of the New College of Forest and Recreation Resources."

ELECTRICAL AND COMPUTER ENGINEERING

A Bell Laboratory-developed analog educational demonstration kit for demonstrating the nature and behavior of electromagnetic waves has been presented to the Electrical and Computer Engineering Dept. by Southern Bell through the efforts of W. L. Ball (Assoc Prof) and R. N. Kersey (Assoc Prof) and the assistance of Mr. Harrison McLaurin, Southern Bell, Greenville and Mr. Hubert C. Estes, Southern Bell, Anderson.

ENGINEERING MECHANICS

Paul B. Zielinski (Assoc Prof) has been appointed Publications Committee Chairman, American Society of Civil Engineers, Tidal Hydraulics Division. The appointment extends for a 2 year period.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Prof and Hd) has been appointed vice-chairman of an International Workshop on Design-Operation Interactions for Wastewater Treatment Plants. The workshop will be held in Vienna, Austria, Sept. 13-17, 1971 and will be sponsored by the International Association for Water Pollution Research.

A. R. Abernathy (Assoc Prof) gave the luncheon address at the fall meeting of the S. C. State Division of the American Association of University Women on Sept. 26 in Columbia. The topic of his talk was "New Ways to Better the Environment."

B. C. Dysart, III (Assoc Prof) had an article entitled "Water Quality Planning in the Presence of Interacting Pollutants" published in the August issue of the Journal Water Pollution Control Federation.

Charles R. O'Melia, Assoc Prof of Environmental Science and Engineering at the University of North Carolina presented a seminar on "Some Concepts of Coagulation and Filtration Processes" to faculty and students on Oct. 1.

INTERDISCIPLINARY STUDIES

H. R. Bungay (Prof) is Chairman of the Division of Microbial Chemistry and Technology, American Chemical Society. Papers presented at the National Meeting of the A.C.S. in Chicago included: "The Effect of Microbial Interactions on Performance of Waste Treatment Processes" by M. J. B. Paynter (Assoc Prof, Microbiol) and H. R. Bungay. "Oxygen Transfer at the Microscopic Level" by H. R. Bungay, W. M. Sanders (Southeast Water Lab., Athens, Ga. and W. J. Whalen (St. Vincent Charity Hospital, Cleveland, Ohio).

MECHANICAL ENGINEERING

A. C. Elrod (Assoc Prof) and J. L. Edwards (Prof) attended a meeting of the Region IV Regional Advisory Committee of the American Society of Mechanical Engineers in Winston-Salem, N. C. on Sept. 12. As faculty advisor, Dr. Elrod reported on the planned activities of the Clemson Student Section of the A.S.M.E. for the academic year 1970-71. As Chairman of the regional Professional Divisions Committee, Prof. Edwards gave the report for this Committee.

PHYSICS

J. R. Ray (Asst Prof) published an article in the June 13 issue of the Lettere al Nuovo Cimento, Vol. 3, pp 739-741, entitled "Reply to Karlov's Article on the Transformation of Force in Special Relativity."

Two faculty members participated in the Second Southeastern Magnetic Resonance Conference at the University of South Carolina, Oct 1-2. F. J. Keller (Assoc Prof) was chairman of a session and R. C. Turner (Asst Prof) presented an invited paper entitled "Radiation Induced Defects in Alkali Azides."

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Assoc Prof) served as Group Leader and Consultant for a Human Relations Training week-end for the staff of the Greenville YWCA at Camp Burgess Glyn, Sept. 12-13. Dr. Stevenson was official Conference Host Sept. 25-27 for Ernest F. Schmidt, National Executive Secretary of the American Camping Association. Mr. Schmidt was a featured speaker at the Annual Conference of the Southeastern Section of A.C.A, comprising South Carolina, North Carolina and Georgia. The meeting was held at the South Carolina Methodist Camp near Cleveland.

FACULTY BASIC RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for Faculty Basic Research Committee grants should be in the Office of University Research not later than November 2, 1970. Application forms may be secured in the Office of University Research. Only proposals using the FBRC application form will be considered by the Committee.

In the past the Committee has made awards to new faculty members initiating research, to faculty members initiating research in a new area, and in areas where other sources of support are inadequate or nonexistent.

LANDER FULBRIGHT-HAYS LECTURER

Dr. Ernest M. Lander, Alumni Professor of history, is on a nine-month teaching assignment at the University of Lagos in Nigeria as that nation's first Fulbright-Hays Lecturer. Lander, a member of the Clemson faculty since 1941, will organize an American studies program in the School of Humanities of the African university, which has an enrollment of some 2,000. Lander, who served as a Fulbright Lecturer in India in 1967, is accompanied by his wife and their two daughters, who will attend private American international schools near Lagos, the capital of Nigeria.

CALENDAR OF CAMPUS EVENTS

Oct. 15	Thurs.	IM/TS Seminar Speaker, Mr. Ted Johnson, Director of Economic Research, Florida Power & Light Co., Miami, Florida.
Oct. 15-17	Thurs.- Sat.	8:00 p.m. Clemson Players - Daniel Hall Theatre.
Oct. 15	Thurs.	4:00 p.m. Agronomy Seminar - Dr. P.K. Birkhead, Changes from bedrock to saprolite in the Coastal Plain region of South Carolina.

CALENDAR OF CAMPUS EVENTS Continued

Oct.	16	Fri.	2:00 p.m.	Duke at Clemson - Freshman Football.
Oct.	16	Fri.	3:00 p.m.	Soccer - University of North Carolina.
Oct.	16	Fri.	3:30 p.m.	Seminar Series sponsored by the Department of Agricultural Economics & Rural Sociology - "Problems Posed by Our Current Farm Programs in Tobacco," Robert W. Rudd, University of Kentucky -- Room 1, Kinard Laboratory of Physics.
Oct.	17	Sat.	2:00 p.m.	Football - Wake Forest at Winston-Salem, N.C.
Oct.	17-	Sat.		Sponsored by the Clemson Architectural Foundation -
Nov.	9	Mon.		Pickens County Artist: Tricentennial Tour Exhibit -- Rudolph Lee Gallery.
				Reception for artists -- Lee Gallery.
Oct.	17	Sat.		Cross Country - UNC, Wake Forest at Chapel Hill.
Oct.	17	Sat.		Basketball Clinic.
Oct.	19	Mon.		Melbourne Symphony Orchestra Concert - Littlejohn Coliseum.
Oct.	20	Tues.	4:00 p.m.	Food Science Colloquium Series - Dr. C.J.B. Smit, Professor of Food Science, University of Georgia, will speak on "Manufacture, Standardization, and Use of Low-Ester Pectins" in Room F-150, P&AS Bldg.
Oct.	21	Wed.	4:00 p.m.	Agronomy Seminar - Dr. G.G. Williams, Director, Division of Agricultural Development, Tennessee Valley Authority, Muscle Shoals, Ala.; Fluid Plant Nutrients - Room A-203, P&AS Bldg.
Oct.	22	Thurs.	3:00 p.m.	Agricultural Economics and Rural Sociology Seminar - Arthur Getis, Rutgers Univ., "Statistical Distributions in Space: An Economic Geographer Looks at the Spatial Distribution of Air Pollution" -- Room 1, Kinard.
Oct.	22	Thurs.		Agronomy Seminar - T.H. Wright: Sorption-desorption of cationic herbicides by soil colloids.
Oct.	23	Fri.	8:00 p.m.	Georgia Tech at Savannah - Freshman Football.
Oct.	23	Fri.		CDA Autumn Dance - Swinging Medallions.
Oct.	24	Sat.	1:30 p.m.	Football - Duke at Clemson (IPTAY Day).
Oct.	24	Sat.		Annual Meeting of Serrine Foundation Trustees.
Oct.	24	Sat.		Meeting at Clemson of Southern Textile Association.
Oct.	24	Sat.		CDA Concert - Coliseum, Three Dog Night.
Oct.	24	Sat.	10:30 a.m.	Soccer - Maryland.
Oct.	25	Sun.		CDA Concert - Coliseum, Kenny Rogers and the First Edition.
Oct.	28-	Wed.-		Ninth Annual Farm and Small Business Income Tax
Oct.	30	Fri.		Course for Tax Consultants - Charleston, S.C. at the Francis Marion Hotel, Sky Terrace Room.
Oct.	29	Thurs.		Agronomy Seminar - R.S. Dobbins; Soil Chemistry in minor plant nutrient elements.
Oct.	30	Fri.	2:00 p.m.	Freshman Football - Wake Forest at Clemson.
Oct.	31-	Sat.-		Sponsored by the Clemson Architectural Found. - Alvar
Nov.	22	Sun.		Aalto-Architect: Architectural Design -- Rudolph Lee Gallery.
Oct.	31	Sat.	2:00 p.m.	Football - Maryland at College Park.
Oct.	31	Sat.		Cross Country - at District II meet, Atlanta, Ga.
Nov.	1	Sun.	2:00 p.m.	Soccer - Virginia.
Nov.	1	Sun.		Little Theatre - Food Industries Theatre, "Lion in Winter" -- Tricentennial special production.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 6

November 1, 1970

STATE EMPLOYEES' ASSOCIATION TO OFFER GROUP LIFE INSURANCE

The S.C. State Employees' Association has announced a new "State Service" life insurance plan, in addition to other benefits available. It is open to any State employee who is a member of the SCSEA. This is group term insurance based on each individual's salary range, and the premiums will change at age 30, 40, 50, etc.

During the month of November, representatives of Pilot Life Insurance Company (the underwriters) will be on campus to explain, solicit, and accept applications for this insurance plan (and for membership in the Association, which is required). Local information may be obtained by calling Mr. William J. Stamey, Insurance Assistant, Personnel Division, 656-2426.

Anyone can purchase at least \$3,000; no one can buy more than \$10,000. The amount will be related to one's salary, and premiums will be based on attained age (10 year levels). Two examples should help: (1) If one's salary is \$4,800, that employee can buy \$4,000, only; if the salary is increased to \$5,100, the insurance must change to \$5,000, or be canceled. (2) At age 30, the premium for \$5,000 is \$2.25 per month; at age 40, this will cost \$3.25. Group insurance stops upon termination, for any reason, but may be converted at individual rates within the first 31 days thereafter.

UNITED FUND CAMPAIGN BEGINS

The Clemson Community United Fund has merged this year with the Pickens County United Fund in the interest of saving administrative expenses and presenting a county-wide effort.

The Pickens County United Fund began the solicitation of funds from individuals in the community on October 5th. Experience indicates that 60% of the funds for our local community come from contributions by employees of the University.

The Fund is distributed to agencies for health, education, welfare, youth programs and recreation under local control, as well as the Red Cross, Boy Scouts, Girl Scouts, Cerebral Palsy, Florence Crittendon Home and United Service Organization.

The theme of this year's campaign is "If you don't do it, it won't get done."

MINUTES OF GRADUATE COUNCIL MEETING, OCTOBER 9, 1970

The meeting of the Graduate Council was called to order by Dean Schwartz at 3:00 p.m. with all members present.

Dr. Wolf moved that the council accept the report of the subcommittee on Research in Absentia and that the proposal be brought up for discussion at the November meeting of the council. The motion was seconded and approved.

Dr. Wolf presented the progress report of the subcommittee on the Revision of the Thesis Manual. The revised committee - Dr. Wolf, Mr. Vick, Dr. Bolen, Dr. Tombes and Dean Schwartz (ex officio).

Dr. Graben (Chairman), Dr. Riggs and Dr. Allen were appointed to serve on the committee on language requirements.

The "Schedule for Submission of New Programs" was distributed by Dean Schwartz.

A subcommittee made up of Dr. Tombes, Chairman, Dr. Graben and Dr. Allen was appointed to evaluate a proposed graduate program in biochemistry.

The subcommittee appointed to study a proposal for a Sixth Year Program in Administration and Supervision included Dr. Jensen, Chairman, Mrs. Sawyer and Mr. Hodges.

Subcommittee reports on the proposals for new programs were requested by November 1.

Action on requests for approval of new graduate courses was delayed pending administration review.

ERIC/CRIER CENTER MATERIALS AVAILABLE

The ERIC/CRIER Center located in the Curriculum Laboratory, Godfrey Hall, Room 120, is open during the day for the use of faculty members and students. Six new microfiche viewing machines are available to use with the microfiche films on all aspects of reading behavior with emphasis on the physiology, psychology, sociology, and the teaching of reading.

A complete set of ERIC/CRIER indexes and basic reference materials on reading is available in the Curriculum Laboratory. Please feel free to make use of this service.

OFFICE OF THE DEAN OF GRADUATE STUDIES

Dr. R. W. Henningson, Asst. Dean of University Research, has been appointed Clemson University's representative on the Council of Oak Ridge Associate Universities. In this capacity, Dr. Henningson will coordinate all campus affairs with respect to ORAU.

CHEMISTRY AND GEOLOGY

F. B. Brown (Assoc Prof) attended the 9th annual meeting of the Society for Applied Spectroscopy at New Orleans, La., Oct. 5-9, and presented a paper entitled, "Comparison of Curvilinear and Rectilinear Molecular Vibrational Models and Determination of the Barriers to Linearity in Some Electronic States of Sulfur Dioxide, Water and Hydrogen Sulfide."

COLLEGE OF ENGINEERING

L. G. Rich (Dean) presented a paper, "Development in Environmental Engineering Education," at the annual meeting of the Engineers' Council for Professional Development in Cleveland, Ohio, Oct. 4-6.

COLLEGE OF FOREST AND RECREATION RESOURCES

W. H. Davis McGregor (Dean) attended the National Convention of the Society of American Foresters in Las Vegas, Nevada on Oct. 9-13. In conjunction with the meeting he represented Clemson University at the Council of Forestry School Executives and the Association of State College and University Forestry Research Organizations.

Herbert Brantley (Assoc Dean) is co-editor with Dr. H. Douglas Sessoms, University of North Carolina, of a book Recreation: Issues and Perspectives, published in Dec. 1969. The book is now available for distribution. Dr. Brantley was recently elected Vice-President of the Society of Park and Recreation Educators, a national organization. He is scheduled to assume the vice presidency at the annual Congress meeting in Houston, Oct. 1971. The Society is a Branch of the National Recreation and Park Association.

DIVISION OF INTERDISCIPLINARY STUDIES

S. F. Hulbert (Assoc Dean) presented a paper entitled "Physical and Mechanical Testing of Composite Porous Materials," at the 1970 Gordon Research Conference, Science and Technology of Biomaterials, Andover, N. H.

S. F. Hulbert and C. C. Fain (Assoc Prof) presented papers at the summer meeting of the Southeast Section of American Ceramics Society in Hendersonville, N.C. in June. Dr. Hulbert presented "Use of Ceramics in Oral Surgery" and Dr. Fain presented "Development of a Soluble Glass Container."

S. F. Hulbert, J. J. Klewitter (Asst Prof), F. A. Young (Assoc Prof, Biophysical Dentistry), R. S. Mathews (Orthopedic Surgery, Saint Albans Naval Hospital), and C. D. Talbert (Grad Stu) presented "Ceramic-Metal Composite Hip Prosthesis" at the Annual TMS-AIME Spring meeting held at Las Vegas, Nev. in May.

J. S. Wolf (Assoc Prof) has received a \$5,000 grant from the S. C. Heart Association to continue his work on "Effect of Surface Pretreatment of Titanium Upon the Clotting Time of Physiological Fluids."

DIVISION OF INTERDISCIPLINARY STUDIES (continued)

S. F. Hulbert (Assoc Dean) was co-chairman of the Engineering Foundation Conferences on Engineering in Medicine-Bioceramics held at Henniker, N.H. in August at which the following papers were presented by departmental staff members at this conference: S. F. Hulbert, F. M. King (Walter Reed Hospital), J. J. Klawitter (Asst Prof), "Initial Surface Interaction of Blood and Blood Components with Al_2O_3 and TiO_2 ." J. J. Klawitter, S. F. Hulbert and C. D. Talbert (Grad Stu), "Application of Porous Ceramics for the Attachment of High Load Internal Orthopedic Appliances." S. F. Hulbert, S. J. Morrison (Grad Stu) and J. J. Klawitter, "Compatibility of Porous Ceramics with Soft Tissue Application to Trachea Prosthesis." R. G. Topazian (Hd, Oral Surgery, Med. Col. of Ga.), W. B. Hammer (Asst Prof, Med. Col. of Ga.), C. D. Talbert (Grad Stu) and S. F. Hulbert, "The Use of Ceramics in Augmentation and Replacement of Portions of the Mandible."

M. J. Eitel (Assoc Prof) attended the 160th national meeting of the American Chemical Society in Chicago in Sept. He presented a research paper entitled "Kinetics of Dissolution of Magnesium Oxide in a Sodium Silicate Melt" by Dr. Hulbert, F. H. Brown (Walter Reed Hospital) and Dr. Eitel. He also presented a paper entitled "Competitive Association of Cations on Dissolved Polyelectrolyte in the Presence of Glass Fibers" which was co-authored by D. A. Key (Grad Stu).

S. F. Hulbert, J. J. Klawitter (Asst Prof) and B. W. Sauer (Asst Prof) have received a \$28,000 grant from the Zimmer Manufacturing Company entitled "Evaluation of a Ceramic-Metal Composite Hip Prosthesis."

Papers published or presented at technical meetings include:

S. F. Hulbert and D. E. Huff (Grad Stu), "Kinetics of Alumina Removal from a Calcined Kaolin with Nitric, Sulfuric, and Hydrochloric Acids," Clay Minerals, Vol. 8 pp. 337-345 (1970).

S. F. Hulbert, F. A. Young (Assoc Prof, Medical Univ. of S.C.), R. S. Mathews (Orthopedic Surgery, Saint Albans Naval Hospital), J. J. Klawitter (Asst Prof) and F. H. Stelling (Adjunct Prof), "Potential of Ceramic Materials as Permanently Implantable Skeletal Prostheses," J. Biomedical Materials Research, Vol. 4 pp. 433-456 (1970).

S. F. Hulbert, F. H. Brown (Grad Stu) and M. J. Eitel, "Kinetics of Dissolution of Magnesium Oxide in a Sodium Silicate Melt" pp. 319-337 in Analytical Calorimetry edited by R. S. Porter and J. F. Johnson, Plenum Press, N.Y. (1970).

The following departmental staff members attended the 72nd Annual Meeting of American Ceramics Society in Philadelphia in May and presented the following papers: S. F. Hulbert and J. K. Chapin (2nd Lt., Charleston AFB, Maine), "Evaluation of Ceramic Materials for Percutaneous Implants."

S. J. Morrison (Grad Stu) and S. F. Hulbert, "Segmental Replacement of the Thoracic Trachea Using a Porous Ceramic."

DIVISION OF INTERDISCIPLINARY STUDIES (continued)

S. F. Hulbert, C. D. Talbert (Grad Stu), R. G. Topazian (Med. Col. of Ga.), and W. B. Hammer (Asst Prof, Med. Col. of Ga.), "Use of Ceramics in a Mandibular Alveolar Ridge Prosthesis."

F. A. Young (Med. Univ. of S.C.), C. N. Wilson (Grad Stu) and S. F. Hulbert, "Ceramics for Oral Implantation."

J. J. Klawitter, S. F. Hulbert, C. D. Talbert and R. S. Mathews, "Use of Ceramics in High Stress Internal Orthopedic Appliances."

S. F. Hulbert, J. J. Klawitter, F. A. Young, R. S. Mathews, C. D. Talbert, S. J. Morrison, J. C. Chapin (2nd Lt., Charleston AFB, Maine), F. M. King (Walter Reed Hospital), T. L. Bridges (Med. Col. of S.C.), and C. N. Wilson (Grad Stu), "Compatibility of Bioceramics with the Physiological Environment."

ECONOMICS

H. H. Macaulay (Alumni Prof) delivered a paper, "Solutions to Pollution: Some Giving and Taking," at the annual meeting of the National Tax Association in Honolulu on Sept. 22.

ELEMENTARY AND SECONDARY EDUCATION

Elizabeth Galloway (Instr) conducted the in-service reading program for Anderson School District #2; is reading consultant for Anderson School District #1; published an article in S.C.P.A.G. and was a guest lecturer at Furman Summer Remedial Reading Program.

Gordon Gray (Assoc Prof) presented a paper, "Factors That Prevent Adequate Teaching of Reading in the Public Schools" at the Western Carolina University Reading Symposium; conducted in-service programs at Athens, Tenn. and Tazewell, Tenn. dealing with reading and community involvement; in-service program for Pickens County Reading Teachers; and in-service program for Orangeburg Public Schools in the area of desegregation of public schools and evaluation of kindergarten children's achievement.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

H. F. Percival (Belle Baruch Fellow) presented a paper, co-authored by L. G. Webb (Assoc Prof) and N. R. Page (Hd, Ag. Chem. Services) on "Some Ecological Conditions Under Which Selected Waterfowl Food Plants Grow in South Carolina" at the meeting of the Southeastern Association of Game and Fish Commissioners in Atlanta, Ga. on Sept. 29. M. J. Barrier (former Instr) presented a paper co-authored with L. G. Webb and J. R. Reed (Prof) "Pesticide Residues in Selected Tissues of the Whitetailed Deer (Odocoileus virginianus) in Calhoun County, S. C." at this conference in Atlanta.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Asst Prof) presented a paper entitled "Simulation of Heterogeneous Sorption of Organic Contaminants in Wastewater for Process-Control of Fluidized-Bed Adsorbers," co-authored by W. J. Weber, Jr. (Prof, Univ. of Mich.), at the 43rd Annual Conference of the Water Pollution Control Federation which was held at Boston, Oct. 4-9. He also co-authored another paper entitled "Removal of Colloidal - and Solution-Phase Impurities from Trickling Filter Effluents by Coagulation" which was presented by W. M. McLellan (Prof, Florida Technological Univ.) at the same conference.

A. R. Abernathy (Assoc Prof) and Don Hill (Admin Asst) spoke at the Small Towns Association meeting at the Pine Island Club near Columbia on Oct. 7. The subjects of their presentations were training opportunities for water and wastewater treatment plant operators in S. C. and a workshop for municipal officials.

FORESTRY

R. E. Schoenike (Assoc Prof) provided considerable information and background material used by Mr. Barrington King in preparing an article entitled "Will the American Chestnut Survive?" in the Sept. issue of Sandlapper magazine.

M. H. Bruner (Assoc Prof) participated in the National Convention of the Society of American Foresters in Las Vegas, Nev. on Oct. 10-15, where he chaired the meeting of the Society's Committee on Registration and Licensing. The committee is studying state registration and licensing of foresters. South Carolina is one of nine states which has a registration law for foresters.

INDUSTRIAL MANAGEMENT

B. J. Todd (Prof) served on an NSF Panel in Washington, D.C. on Oct. 8-9 to evaluate undergraduate research proposals.

LANGUAGES

G. J. Fernandez (Asst Prof) presented a paper entitled "Presencia de la arquitectura en las novelas de Alejo Carpentier" at the twentieth annual Mountain Interstate Foreign Language Conference held at Carson-Newman College, Jefferson, Tenn., Oct. 9-10.

MATHEMATICS

R. E. Haymond (Assoc Prof) presented a paper entitled "Digital Simulation of Implicit Differential Equations" at the national meeting of the Society of Industrial and Applied Mathematics held in Boston, Mass. on Oct. 12-14. The paper was co-authored with Dr. J. P. Brannen of the Sandia Corporation, Albuquerque, N. M.

MUSIC

Edith B. Card (Instr) arranged and performed background music on the Appalachian dulcimer for the documentary, "Walnut Grove," presented by WSPA TV on Oct. 13.

NURSING

Leon Roswal (Dir., Assoc. in Arts Degree Program) and Regina Thompson (Asst Prof, Baccalaureate Program) participated in Walhalla High School Career Day on Oct. 1.

Geraldine Labecki (Dean) participated in Daniel High School Career Day on Oct. 7.

Geraldine Labecki and Rose Godbout (Assoc Prof) participated in a meeting on Graduate Education in Nursing sponsored by the Southern Regional Education Board, Project on Nursing, Sept. 28-30, Atlanta, Ga.

Miss Winifred Maher, Acting Chief, Psychiatric Nursing Training Board, National Institute of Mental Health, made a site visit to the School of Nursing on Oct. 7.

Miss Juanita Woods (Lecturer and Clinical Specialist in Psychiatric Nursing) has an article in the fall issue of the South Carolina Nursing Magazine, titled "Emotional Problems of the Geriatric Patient and His Family."

PLANT PATHOLOGY AND PHYSIOLOGY

O. W. Barnett (Asst Prof) and E. I. Zehr (Asst Prof) attended the annual meeting of the American Phytopathological Society at Hot Springs, Ark., Oct. 4-8. Dr. Barnett presented a paper entitled "Differential Stabilization of Certain Labile Viruses." Dr. Zehr was elected chairman of the Society's New Fungicide and Nemeticide Data Committee for 1971.

POULTRY SCIENCE

B. D. Barnett (Prof and Hd) presented an invited paper entitled "Broiler Nutrition in a Consumer Oriented World" before the 20th Annual Conference of the Arkansas Formula Feed Conference in Fayetteville, Ark., Sept. 24.

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Prof and Hd) has been appointed to the 1971 Congress Program Committee of the National Recreation and Park Association. Delegates to the Congress number four to five thousand professionals and laymen representing the fields of recreation, parks, and conservation.

RECREATION AND PARK ADMINISTRATION (continued)

L. W. Gahan (Asst Prof) presented a paper entitled "An Analysis of Factors Affecting Water-Oriented Consumer Patterns in the East-Central Illinois Region" at the Annual Congress for Recreation and Parks in Philadelphia, Pa., Sept. 27-30. The study which was the basis for the paper was made possible by a grant from the Water Resources Center at the University of Illinois.

ZOOLOGY

W. K. Willard (Asst Prof) attended an Ecology Symposium entitled "Toward Relevant Ecology" at the University of Georgia, Oct. 2-3. The symposium was a testimonial honoring the election of Dr. E. P. Odum into the National Academy of Sciences. Dr. Willard presented two papers: "Comparative Radiosensitivity: A Unifying Concept," and "Comparative Radiosensitivity in the Class Insecta."

A. S. Tombes (Assoc Prof) presented a seminar on Invertebrate Endocrinology to the Biology Department of Converse College, Oct. 1.

CALENDAR OF CAMPUS EVENTS

Nov. 1	Sun.		Little Theatre - Food Industries Theatre, "Lion in Winter" -- Tricentennial special production.
Nov. 1	Sun.	2:00 p.m.	Soccer - Virginia
Nov. 2- Nov. 7	Mon.- Sat.	8:00 p.m.	Little Theatre - Food Industries Theatre, "Lion in Winter."
Nov. 2	Mon.	8:00 p.m.	Grand prize - Cannes Film Festival, <u>Codine</u> (French).
Nov. 2	Mon.		Dr. Harold C. Fritts, professor of dendrochronology at the University of Arizona and world authority on the use of tree rings to study climate, will present a seminar - "Ecological and Physiological Evidence for the Use of Tree Rings to Study Climate," --- and a general lecture - "Dendroclimatology: The Use of Tree Rings to Study Environment and Past Climate" -- both will be held in the auditorium of the P&AS Building. Dr. Fritts' visit is sponsored by The Belle W. Baruch Research Institute of Clemson University, the forestry department, and Clemson's chapter of The Society of the Sigma XI.
		4:00 p.m.	
		8:00 p.m.	

CALENDAR OF CAMPUS EVENTS Continued

Nov. 3	Tues.		Election Day.
Nov. 3	Tues.	4:00 p.m.	Physics Colloquium - Dr. Ralph Meyer; Materials Science Division, Argonne National Laboratory; will speak on "Reactor Fuel Swelling; A Diffusion Problem" -- Room 101 Kinard Laboratory of Physics.
Nov. 3- Nov. 5	Tues.- Thurs.		Ninth Annual Farm and Small Business Income Tax Course for Tax Consultants - South Carolina Farm Bureau Auditorium, 724 Knox Abbott Drive, Cayce, S.C.
Nov. 3	Tues.	4:00 p.m.	Dr. T.O. Nakayama, Associate Professor of Food Science of the University of Georgia, will speak on "Food Science and the Brewing Industry" at the Food Science Colloquium Series in F-150, P&AS Bldg.
Nov. 5- Nov. 6	Thurs.- Fri.		Sixth Annual Meeting of Southern Chapter of The Institute of Management Science (TIMS) at Clemson House.
Nov. 5	Thurs.	3:00 p.m.	Agricultural Economics and Rural Sociology Seminar - Gaines H. Liner, Clemson University; "Economic Study of the Potential Need for a Regional Water Supply System in the Carolina Piedmont" - Room 1, Kinard Lab.
Nov. 5	Thurs.		Agronomy Seminar - J.S. Boswell, Jr.; Sorption - desorption of anions by soil colloids.
Nov. 7	Sat.	7:30 p.m.	Football - Florida State at Tallahassee.
Nov. 7	Sat.	2:00 p.m.	Soccer - N.C. State.
Nov. 9	Mon.		Cross Country ACC Meet at Chapel Hill.
Nov. 10	Tues.		Soccer - at Furman.
Nov. 10- Nov. 12	Tues.- Thurs.		Ninth Annual Farm and Small Business Income Tax Course for Tax consultants - Holiday Inn No. 3, Intersection I-95 and Darlington Highway No. 52, Florence, S.C.
Nov. 11	Wed.		Last day to drop a subject; last day to withdraw without recorded grades.
Nov. 12	Thurs.	4:00 p.m.	Water Resources Engineering and Environmental Systems Engineering Seminar - Dr. Jon C. Liebman, Johns Hopkins Univ., "Equity in Environmental and Water Resources Development" in Room 302, Rhodes Engineering Research Center.
Nov. 12	Thurs.		Agronomy Seminar - W.I. Segars; Separation of crystalline and amorphous components of soil mineral colloids.

CALENDAR OF CAMPUS EVENTS Continued

Nov. 13	Fri.		Sponsored by the Clemson Architectural Foundation London Grafica Arts Print Show: One Day Only Sales Exhibition - Rudolph Lee Gallery.
Nov. 14	Sat.	1:30 p.m.	Football - North Carolina at Clemson (Parent's Day
Nov. 14	Sat.-		Sponsored by the Clemson Architectural Foundation
Dec. 6	Sun.		New Work-New York: Non Figurative Painting, American Federation of Arts -- Rudolph Lee Gallery
Nov. 14	Sat.	10:30 a.m.	Soccer - Emory.
Nov. 15-	Sun.-		Board of Visitors.
Nov. 17	Tues.		
Nov. 16	Mon.	8:00 p.m.	The Revenge of Don Mendo (Spanish) 1961 -- Parody of romantic drama based on the play by Munoz Seca.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 7

November 15, 1970

COLLEGE AND UNIVERSITY REPORTS ARE AVAILABLE

The Development Office has available for total University usage a complete and up-to-date set of College and University Reports published by the Commerce Clearing House, Inc. This publication covers many federal programs of specific interest to colleges, universities, faculties, students, and donors, as well as new programs and regulations developed by Congress and federal agencies. In an attempt to better utilize this very fine service, the Development Office has made arrangements to purchase and forward to each of the Deans, weekly, an individual copy of the Summary Report that summarizes and outlines the programs that are detailed in full in the reports maintained by the Development Office. If you have any interest in programs involving Government agencies, please consult these reports.



FIRST SALE MADE -- Mrs. Judy Ray, center, of Liberty donates the first dollar to the Clemson Jaycees' "Honey Sunday" drive and receives a bottle of honey from President Robert C. Edwards, honorary state chairman of the Nov. 8 effort. Looking on at left is Albert Kline, president of the Clemson Jaycee chapter. "Honey Sunday" is a statewide Jaycee fund-raising effort to help mentally retarded children.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 8, 1970

President B. J. Prochaska called the meeting to order at 4:15 p.m. The minutes of the previous meeting were corrected to read "deans" instead of "dean" (p. 1, par. 8, line 2) and to omit the second word "action" (p. 1, par. 8, line 4), both typographical errors; then the minutes were approved as corrected.

President Prochaska called the Senate's attention to the circulated list of appointments to University Committees: E. A. Vaughn to Admissions; E. B. Rogers to Patent; M. K. Richardson to Safety and Fire Prevention; and Jo Ann McNatt to Disciplinary. Four alternate members of the Disciplinary Committee were also named: N. D. Camper, M. W. Jutras, F. J. Keller, and Corinne Sawyer. President Prochaska has been notified that the Faculty Senate needs to recommend one faculty member to President Edwards for appointment to the Disciplinary Committee and needs to appoint two alternates. It was mutually agreed that the Advisory Committee would handle this matter.

Concerning the Senate's resolution calling for the abolishment of the re-examination for graduating seniors, President Prochaska announced that the Administration would appreciate a specific poll of faculty-wide opinion on this matter, since the measure was instituted at the request of the faculty in 1958 to remedy the then existing problem of lengthy debates in faculty meetings about prospective graduates who lacked several grade points for the required G.P.R. The Admissions and Scholarship Committee was instructed to undertake the poll.

President Prochaska announced the election of a new Senate member, Professor Koloman Lehotsky, representing the newly formed College of Forest and Recreation Resources. He then acknowledged receipt of a letter from Joe Sherman, Director of Alumni Relations, containing a resolution passed by the Clemson Alumni Association, the contents of which were read by the Senate Secretary. It noted the important role of the university in the world and the growing problems brought about by violence on campuses across the country; noting that both faculty and student body must be kept free from coercion from any source and from conflict and violence, the resolution went on:

RESOLVED, that the Clemson University Alumni Association affirms its support of the present policies and actions of the Clemson University Board of Trustees, President Robert C. Edwards, the Clemson University Administration and Faculty and be it further

RESOLVED, that the Clemson University Alumni Association extends a special vote of confidence to the Board of Trustees, President Edwards, the Administration, and Faculty in acknowledgement of our trust in their ability to meet the enormous challenges of the future calmly, fairly, and forthrightly

The resolution further commended the Clemson student body for its continued maintaining of high standards in these troubled times, and the Alumni Association pledged its continued dedication to the increasing excellence of the University.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 8, 1970 (continued)

President Prochaska then called attention to a continuing problem, that of late resignation by faculty and staff. He pointed out that there is an unwritten agreement among members of the academic community that recruitment for new staff shall not be conducted among other colleges' staffs during the last 90 days before the beginning of the new academic year. Yet staff members have been proselytized from Clemsons late as one month from the beginning of Clemson's fall semester, violating the understanding and creating problems for both the Administration and the remaining faculty. Comments from the floor pointed out that one's salary is part of one's working conditions and it was stated that, because of peculiarities in this state's legislative process, a faculty member does not know what his exact salary at Clemson will be until after the 90-day period in question. Following additional discussion, it was suggested that early notification of intention to re-employ and of at least the suggested salary for the coming year might be made a uniform procedure throughout the University, in order to help faculty members decide on their own courses of action for the coming year well in advance of the 90-day deadline.

Reporting on the resolutions passed at the last meeting of the Faculty Senate, President Prochaska stated that the Administration is reconsidering allocation of the funds for the University Union, but that no decisions have been announced, nor has any specific change yet been suggested. In response to the Senate's resolution concerning publication of Graduate Council minutes, a letter from Dean Schwartz to Dean Hurst, forwarded to the Senate, states that the Graduate Council at a recent meeting agreed to publish the actions of that body in the Newsletter.

There was no report from the Welfare Committee.

Professor John Idol, reporting for the Admissions and Scholarship Committee, read a proposed resolution that faculty members receive computer print-outs of grades given, to insure that these matched the grades they intended each student to have. The proposal was held in committee because of implementation problems. The committee also is taking no action at this time in the matter of Administrative endorsement of specific academic programs, but will reconsider if circumstances warrant in the future. Professor Idol also moved on behalf of the committee the final form of the much-discussed resolution, seconded by Professor D. R. LaTorre:

The Faculty Senate supports the President of Clemson University in his decision that the Atlantic Coast Conference should eliminate the requirement that a prospective student-athlete must score a minimum of 800 on the SAT as a prerequisite for eligibility to receive a grant-in-aid and/or participate in intercollegiate athletics.

The motion passed 21 to 4. Some concern was expressed that athletes not be given special privileges in the other direction, however, and that they should not be admitted with lower scores than those considered acceptable for a freshman who is not an athlete.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 8, 1970 (continued)

There was no report from the Research Committee.

Professor Hugh Adams reported for the Policy Committee the decision to table the question of revising University policies to meet accepted national standards. He announced that the proposed statement of University purpose would be revised to accommodate various suggestions and comments from other Senate committees and individual members. Then on behalf of the Committee, Professor Adams presented a resolution designed to recognize the importance of the Alumni Professorships which are provided as part of the Clemson Alumni Loyalty Fund, seconded by W. C. Whitten.

The President of the Faculty Senate is empowered and directed to express the appreciation of the Senate to the Clemson Alumni Association for the Alumni Professorships, a stimulus to improve teaching at Clemson University.

The motion passed unanimously.

Professor M. W. Jutras reported that Ad Hoc Committee A (revision of the manual for faculty members) had met with Dean Hurst and would meet again on September 17.

Professor R. F. Borgman, for Ad Hoc Committee B (graduate faculty and standing committees of the University) presented Senate members with a mimeographed digest of the major points of discussion in a meeting of his committee. He called special attention to the item stating that the Graduate Council advises on but does not direct Graduate School policy, and to the change, now in progress, of membership on the Council, reducing faculty representation to one per college and adding two student members.

Professor Vernon Hodges being absent to attend a meeting of the University Union Building Committee, Professor B. J. Skelton reported for his Ad Hoc Committee that a letter requesting suggestions for facilities from the faculty had been drafted and would be circulated. It was pointed out from the floor that many faculty members had been reluctant to ask for faculty facilities in a "Student" Union, but since funds were allocated specifically for a "University" Union, requests for faculty accommodations were quite in order.

As the first item of new business, Professor Hugh Adams moved that, since the giving of honorary degrees had become pro forma and might tend to cheapen a Clemson honorary degree, such presentations be limited to very special occasions and to extraordinary circumstances. An amendment to change the resolution to read that the giving of such degrees be terminated, presented by Professor J. C. Mullins, seconded by Professor E. B. Rogers, was defeated 18 to 3. The final motion as presented, seconded by Professor E. B. Rogers, was:

The awarding of honorary degrees should be limited to occasions of special significance to the University when the awarding would clearly express the ideals of the University or recognize exceptional attainment.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 8, 1970 (continued)

This motion passed by a vote of 25 to 1.

Professor Lehotsky pointed out that it was extremely difficult for some Senate members, who had late labs, to attend Senate meetings. Professor J. C. Mullins moved that meeting times be advanced to 4:45, seconded by Professor J. A. Hash. The motion was defeated 19 to 8. It was moved and seconded, however, that Senate President Prochaska be requested to write to deans and department heads requesting that consideration be given to Faculty Senators with respect to the scheduling of their classes, so as not to conflict with the published Tuesday afternoon meeting times of the Senate. This motion passed unanimously.

The meeting was adjourned at 5:55.

Absent: J. W. Hubbard; V. S. Hodges; M. K. Richardson; Rose Godbout.

MINUTES OF THE GRADUATE COUNCIL, OCTOBER 23, 1970

The Graduate Council met at 3:00 p.m., Friday, Oct. 23, 1970, with all members present except Mr. Vick and Dr. Wolf. Dr. H. W. Busching attended the meeting on behalf of Dr. Wolf.

Several graduate courses were approved by the Council to be forwarded to the Curriculum Committee. The Council requested additional information or clarification for some of the courses presented, and action on these was deferred.

The next meeting of the Graduate Council was tentatively scheduled for Friday, November 13, 1970.

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, OCTOBER 6, 1970

Present: D. R. LaTorre (Chairman), R. J. Calhoun, W. E. Castro, J. A. Hash, Opel Hipps, M. L. Hockenberry, M. W. Jutras, Ralph Knowland, R. E. Schoenike, J. M. Wannemaker, H. H. Wilson, J. W. Gordon Gourlay (Secretary)

Minutes of the meeting of September 1 were approved.

Chairman announced that he had sent a memorandum to Mr. Harry Durham concerning the meeting between the Library Committee and the University Communications Committee.

Faculty and Student Questionnaire. Dr. LaTorre who is on the Library Committee for the Institutional Self-Study distributed, for discussion and suggestions, the draft of the student library survey and faculty library survey. He said that the changes recommended by the Library Committee would be incorporated in the survey before it was turned over to the Institutional Self-Study Committee.

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, OCTOBER 6, 1970 (con

Computer Tabulation. Dr. LaTorre outlined the method by which the computer would tabulate the results of the student library survey and indicated the types of information that would appear in the final report.

Time of the next meeting - Tuesday, November 3, 1970 at 4:00 P.M.

AAUP

The Clemson University Chapter of the American Association of University Professors met October 20. The Chapter reminds all faculty members that the Policy Documents and Reports of the AAUP are available in each departmental office. If you have occasion to refer to AAUP policies, see the Head of your Department.

Chapter dues of \$2 per year may be paid to Professor JoAnn McNatt, 504 Strode Tower.

ARCHITECTURE

Peter R. Lee (Assoc Prof) met with architectural educators from throughout the United States and Canada in Pittsburgh at the 15th Annual Teachers Seminar held from Oct. 25-29. The meeting was sponsored by the American Institute of Architects and the Association of Collegiate Schools of Architecture, and supported this year by The National Endowment for the Arts.

Under the chairmanship of Robert S. Harris, AIA, Head of the Department of Architecture at the University of Oregon, the four-day meeting examined curricular reform growing out of new awareness of the ways in which environmental problems and opportunities may be identified and environmental design understanding generated.

CERAMIC ENGINEERING

C. C. Fein (Assoc Prof) presented a paper, "Improving Porcelain Strength Through Microstructure Control," at the fall meeting of the American Ceramic Society held in Bedford, Pa., Oct. 1-3.

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) attended the National Safety Congress and Exposition Traffic Sessions in Chicago, Ill. on Oct. 27-28, where he presented a paper entitled "Emergency Medical Services for Rural Areas." Dr. Clark published an article, coauthored by L. Ray Johnoon, entitled "A Systems Improvement Factor for the Evaluation of Emergency Roadside Telephones" in the Oct. issue of Traffic Engineering.

H. W. Busching (Assoc Prof and Hd) and two students from Clemson University, Paul Mims (Chem Engr) and Becky Ford (Math), participated in "The National Conference on Goals, Policies and Programs of Federal, State and Local Science Agencies" held in Atlanta, Oct. 12-14. Dr. Busching also participated in an Engineering Department Chairmen Institute in Miami, Fla. on Oct. 19-20.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Maj. Gen. William S. Coleman, commanding general at Fort Jackson, will be guest speaker at the Industrial Management and Textile Science Seminar Series on Thursday, Nov. 19 at 2:00 p.m. Gen. Coleman will speak on the "Industrial-Military Complex" or will give a posture report on the Armed Forces and U.S. Army.

COUNSELING CENTER

Dr. Virginia S. Hardie (Director) was elected Secretary and a member of the Executive Council of The South Carolina Mental Health Association at the annual meeting on Oct. 20 in Columbia. She also was the banquet speaker for the South Carolina Association of Bank Women at the annual convention held in Anderson on Oct. 28. The title of her address was: "Women Pegs or Pegged Women?"

Dr. Hardie addressed a meeting of the Virginia University Woman's Club, meeting in Lynchburg, Va., on Nov. 5. The subject of her address was: "The Life of a Psychologist Can Be Fun!"

COMPUTER CENTER

A. L. Griffiths, Manager of Operations, served as panel chairman for the 1970 S. A. E. National Aeronautics and Space, Engineering and Manufacturing meeting in Los Angeles. Mr. Griffiths' six member panel addressed such subjects as: Software Engineering Approach to Practical Computer Graphics, Computer Aided Design and Planning, The Use of Computers in Advance Industrial Floor Control.

DAIRY SCIENCE

W. A. King (Prof and Hd) attended the 18th International Dairy Congress in Sydney, Australia, Oct. 12-16. He served as a U.S. delegate and Secretary of the Forage Section. A paper entitled "Effect of Nickel Supplementation on Production and Composition of Milk" by G. D. O'Dell, W. J. Miller, W. A. King, J. C. Ellers and H. Jurecek was presented.

ENGINEERING MECHANICS

N. R. Bauld (Prof) and Nuri Akkas (Grad Stu) authored a paper entitled "Buckling and Initial Post-Buckling Behavior of Clamped Spherical Shells Under Axisymmetric Band Type Loads" which was presented at the XIV South American Sessions on Structural Engineering and the IV Symposium on Pan American Structures on Oct. 27 in Buenos Aires, Argentina.

R. W. Moorman (Prof and Hd) participated on the Science Faculty Fellowship Selection Panel Nov. 5-8 in Washington, D.C.

W. E. Castro (Assoc Prof) presented a seminar on The Reduction of Blood Flow Turbulence with Polymer Additives to the research staff at USV Pharmaceutical Company at Yonkers, N.Y. on Oct. 28.

FORESTRY

President R. C. Edwards gave the luncheon address at the annual meeting of the South Carolina Forestry Association on Oct. 29 in Columbia. Dr. Edwards discussed the newly established College of Forest and Recreation Resources and the future outlook for professional forestry education.

W. J. Barker (Prin Ext Spec) was elected treasurer and R. M. Allen (Hd) director-at-large of the S. C. Forestry Association.

K. Lehotsky (Prof) was named the first recipient of the S. C. Forestry Association's Charles H. Flory Distinguished Service Award for "outstanding contributions to forestry in South Carolina." The presentation of the award was made at the Association's annual meeting in Columbia.

HONORS PROGRAM

Norman Olsen, Jr. (Chairman) represented the University at the annual meeting of the National Collegiate Honors Council in Boulder, Colo. Oct. 23-24.

MUSIC

Edith B. Card (Instr) presented six mini-concerts on Nov. 3 to the first and second grades of the Laurens schools playing the Appalachian dulcimer and singing Appalachian folk songs. The concerts were sponsored by the S. C. Arts Commission.

She also arranged and recorded background music on the Appalachian dulcimer for the film, "Camp Good Hope," prepared by Clemson Communications Center in cooperation with the Department of Recreation and Parks Administration and the Mental Retardation Association.

NURSING

Opel Hipps (Instr) participated in Parker High School Career Day on Oct. 22. She also participated in Belton-Honea Path High School Career Day on Nov. 4.

Susan Rockwell (Instr) participated in Abbeville High School Career Day on Oct. 28.

Leon Roswal (Dir, Assoc in Arts Degree Program) participated in Parker High School Career Day on Oct. 26.

Geraldine Labecki (Dean) and Leon Roswal participated in a meeting sponsored by the Southern Regional Education Board Oct. 28-30 in Atlanta.

Dean Labecki was the luncheon speaker at the annual meeting of the S. C. Nurses' Association, Greenville, Nov. 6. She spoke to the group on Nursing - Revolution, Evolution and Volution.

PHYSICS

J. W. Cook (Grad Stu), M. J. Skove (Prof), E. P. Stillwell (Prof) and R. S. Thompson (Univ of Southern Calif) published a paper in the Sept. 7 issue Physics Letters, entitled "Anomalous Paraconductivity of Superconducting Whiskers above T_c ."

T. F. Collins (Asst Prof) received a \$2,000 Academic Year Extension grant from the National Science Foundation. This money is to be used to continue research which was begun at the University of Florida and at the Cerro Tololo Inter-American Observatory in Chile.

M. J. Skove (Prof) gave an invited talk entitled "Superconductivity in Whiskers" at the Department of Physics, University of South Carolina on Oct. 22.

RECREATION AND PARK ADMINISTRATION

Herbert Brantley (Prof and Hd) was elected President of the S. C. Recreation and Park Society at its Annual Conference, Oct. 25-27 and will serve until the conclusion of the 1971 Conference Program.

Jack Stevenson (Assoc Prof) addressed a General Session of the S. C. Recreation and Park Society on "Establishing Your Goals and Objectives." The meeting was held Oct. 25-27 at the Wade Hampton Hotel in Columbia.

ZOOLOGY

Averett S. Tombes (Assoc Prof) and David S. Smith (University of Miami School of Medicine) published a paper entitled "Ultrastructural Studies on the Corpora Cardiaca-Allata Complex of the Adult Alfalfa Weevil, Hypera postica, in Journal of Morphology, Vol. 132:137-148.

A regional conference on comparative endocrinology cosponsored by Duke and Clemson Universities will be held at the Duke Marine Laboratory, Beaufort, N. C. Dec. 4-5. This is open to interested graduate students and young investigators with interests in all aspects of endocrinology. Financial support for the participants has been made available through the National Science Foundation. Questions concerning pre-registration and abstracts for the program should be directed to the director of the conference A. S. Tombes.

FACULTY & STAFF SEASON BASKETBALL TICKETS

All faculty and staff who did not order season basketball tickets for 1970-71 may obtain an application at the ticket office in Fike Field House. The priority deadline for ordering season tickets will expire Friday, November 20.

CALENDAR OF CAMPUS EVENTS

Nov. 15-	Sun.-		Board of Visitors.
Nov. 17	Tues.		
Nov. 16	Mon.	8:00 p.m.	"Don Quixote De La Mancha" (Spanish - Foreign Language Film Series) - Daniel Theatre.
Nov. 17	Tues.	3:00 p.m.	Agricultural Economics and Rural Sociology Seminar - J.N. Smith, Southwest Missouri State College; "Statistical Models for Predicting the College Performance of High School Students"- Room 1, Kinard Laboratory of Physics.
Nov. 17	Tues.	4:00 p.m.	Dr. D.V. Schwall of the Ralston Purina Company, St. Louis, Mo., will speak on "Processed Poultry Products at the Food Science Colloquium Series in F-150 P&AS
Nov. 19	Thurs.	4:00 p.m.	Agronomy Seminar - Dr. J.D. Maxwell, Food Uses of Soybeans; Room A-203, P&AS Building.
Nov. 19-	Thurs.-		Sixth Annual Seminar on Air and Water Pollution Control sponsored by the Departments of Chemical Engineering and Environmental Systems Engineering, the Poinsett Chapter of the American Institute of Plant Engineers, and the South Carolina Pollution Control Authority to be held at Earle Hall and Clemson House, Clemson University. Additional information available from OIMR, 112 Riggs Hall.
Nov. 20	Fri.		
Nov. 20	Fri.		Coldstream Guards & Black Watch -- Littlejohn Coliseum.
Nov. 20	Fri.		CDA Carolina Dance - O'Jays (Dining Hall).
Nov. 21	Sat.	1:30 p.m.	Football - South Carolina at CLEMSON.
Nov. 21	Sat.		CDA Concert - Coliseum - Four Tops.
Nov. 23	Mon.		Cross Country - NCAA meet at William and Mary.
Nov. 23	Mon.	8:00 p.m.	<u>How not to Rob a Department Store</u> (French) 1965 - With Jean Claude Brioly and Albert Remy-Daniel Theatre
Nov. 24	Tues.		Fall Business Meeting of Ft. Hill- Clemson Alumni Club at Clemson House.
Nov. 25	Wed.		Thanksgiving holidays begin after last class.
Nov. 26	Thurs.		Thanksgiving Day.
Nov. 30	Mon.		Classes resume.
Dec. 1	Tues.		Clemson Choir - Daniel High School Auditorium.
Dec. 1-	Tues.-		Ninth Annual Farm & Small Business Income Tax Course for Tax Consultants - Poinsett Hotel, Gold Room, Greenville, S.C.
Dec. 3	Thurs.		

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 8

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

December 1, 1970

SOUTHERN ASSOCIATION VISITATION, OCTOBER 31 - NOVEMBER 3, 1971

In connection with the Institutional Self-Study now in progress at Clemson University, a committee from the Southern Association of Colleges and Schools will visit the Clemson campus on October 31 - November 3, 1971. At this time the Visitation Committee will review the results of our Self-Study and will begin the preparation of their report to the Southern Association. A periodic institutional self-study is one of the requirements for the reaffirmation of accreditation by the Southern Association.

DONOR-SELECTED EDUCATIONAL GRANTS

The following policy has been adopted by Clemson University as it relates to educational grants for recipients who are selected by the donor and not by the University. This policy supplements the one, previously announced, in which the recipients are chosen by the University.

The policy on Donor-selected Educational Grants follows:

Funds to support donor-selected educational grants should be transmitted directly by the donor to the recipient, or in the alternative, from the donor to the Accounting Division of the University for acknowledgment and credit to the account of the recipient. Vouchers will not be necessary, and these types of grants will not be listed in the category of scholarships or listed in the catalog or other brochures.

If it is considered desirable and appropriate, the University may enter into a formal agreement with the donor for disposition of funds. After the approval of the dean of the college or school concerned and the University Honors and Awards Committee, the agreement shall be forwarded to the Vice-President for Business and Finance for signature.

No comment or opinion may be made by personnel of the University relating to tax exempt status of such contributions. That determination is the responsibility of the donor.

NEWSLETTER TO PUBLISH DECEMBER ISSUES

The Newsletter will publish two issues during the month of December. All items to appear in the December 15th issue must be submitted by the 5th; items to appear in the January 1st issue must be submitted by the 10th.

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 13, 1970

The meeting was called to order at 4:15. The minutes of the previous meeting were accepted as circulated with the correction of Prof. Jutras' initials from M. K. to M. W.

President Prochaska reported that he had attended two meetings since Sept., that of the Education Council and that of the Vending Machine Committee. He called attention to his report to the Senate, circulated in the previous week, and asked that its items be entered in the record:

1. The Senate's Advisory Committee has recommended to President Edwards the appointment of M. K. Richardson to the University Disciplinary Committee with W. E. Castro and Rose Godbout appointed as alternates.
2. Prof. J. L. Idol, Prof. M. W. Jutras, and President Prochaska will represent the faculty on the Tri-Level Council (Administration-Faculty-Student), which will begin its functions in the near future.
3. The Advisory Committee of the Senate passed to the Welfare Committee for study and to make recommendations the Student Senate's Bill #B-71-01 requesting elimination of the part of the student regulations concerning attire. The bill had been forwarded by the Administration, which felt this matter was of direct concern to the faculty.
4. The Administration has also passed to the Senate the Student Senate's Bill #B-71-02 concerning the establishment of a "University Senate," made up of both student and faculty members. The Advisory Committee of the Faculty Senate concluded that the Tri-Level Council, which already exists on campus, is the appropriate body for the study of this bill. The Senate is willing to participate in such a study through its representatives on the Tri-Level Council.

President Prochaska was asked by the Senate members to check on the status of last year's Senate resolution concerning the so-called "removable F." Referring to the report to the faculty made by former President Pearce in May, 1970, President Prochaska reported that effective May 18, 1970, as approved by the Education Council, no grade of F gained by a freshman in his first semester of registration would count toward his G.P.R. Since, as Senate members pointed out, this was not at all what the Senate's resolution had meant to achieve and since this appeared to represent a loosening of standards beyond that which the Senate could approve, it was moved by Prof. H. D. Adams, seconded by Prof. J. L. Arbena, that the Senate's Admissions and Scholarship Committee take charge of investigating this matter and making recommendations. The motion passed unanimously.

President Prochaska was also asked to follow up the matter of free tuition for faculty children. The Pearce report indicated that the Administration, which had brought the matter to the legislature not long ago, felt this to be a politically unwise time to press the matter, but had no objections to the faculty's suggested attempts to enlist the aid of other state colleges. The Admissions and Scholarship Committee was instructed to make such contact.

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 13, 1970 (Continued)

In the matter of the Senate's resolution concerning re-examination of the allotment of funds for a University Union complex, President Prochaska reported no official reply as yet by the Administration to the request of August 18.

Prof. J. C. Mullins reported on the meeting during the afternoon (of the same day, Oct. 13) with student representatives concerning campus dress regulations. He moved on behalf of his committee, seconded by Prof. H. D. Adams:

The Senate recommends that Section 1, Article 2, Paragraph 1 of the 1970-71 Student Regulations not be deleted and that the student bill requesting deletion (B-71-01) be returned to the Student Senate for consideration of a possible revision of the above mentioned "dress code."

The motion passed by a vote of 20 to 10.

A motion by Prof. M. W. Jutras, seconded by Prof. N. D. Camper, to recommend to the Student Senate rewording to embody the idea that dress codes should be based on matters of student health and safety and/or on the potential for disruption of a class was defeated, 11 to 19, on the grounds that the Faculty Senate should not dictate to the students the wording of their revision.

Prof. J. L. Idol reported for the Admissions and Scholarship Committee the circulation to the faculty of survey forms requesting opinion on the elimination of re-examinations for graduating seniors. The Senate instructed the Committee to consider also the elimination of re-examination for seniors in those classes in which they received a failing grade (the present proposal refers only to the portion about improving over-all G.P.R. by retaking an exam in any course.) It was pointed out from the floor that the present system puts the burden of a student's failure to graduate on the shoulders of a single faculty member who is clearly not to blame for the fact that the student's previous record is poor enough to make him a borderline case.

Prof. H. D. Adams brought to the floor the Statement of University Purpose prepared as a working paper for the Self-Study Committee by the Policies Committee and moved its adoption, seconded by Prof. W. E. Castro. A motion to amend Paragraph 2 introduced by Prof. J. C. Fanning, seconded by Prof. F. J. Keller, passed unanimously. A motion to amend Paragraph 5 by deleting reference to the University's role as an instrument of change, introduced by Prof. K. Lehotsky and seconded by Prof. E. B. Rogers, was defeated 16 to 8. A motion to amend Paragraph 5 with a compromise wording, proposed by Prof. J. L. Arbena, seconded by Prof. W. E. Gettys, passed unanimously. Prof. D. R. LaTorre moved deletion of the entire second page of the purpose statement, seconded by Prof. J. L. Idol, and the motion passed by voice vote. Prof. J. C. Mullins moved the entire statement be returned to committee. The motion, seconded by Prof. V. S. Hodges, was defeated by voice vote. Prof. D. R. LaTorre moved deletion of the entire first paragraph of the statement, a historical view of Clemson's purpose. Seconded by Prof. E. B. Rogers, the motion was defeated by voice vote. The original motion was called at this time, including the first and third amendments; it read as follows:

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 13, 1970 (Continued)

The Faculty Senate adopts the following statement of University purposes:

The original purposes of Clemson Agricultural College were indicated in the will of Thomas G. Clemson, the acceptance of its terms by Act of the General Assembly of South Carolina, and the Morrill Land-Grant Act passed by the United States Congress in 1862. The Clemson will was changed as a result of a court decision and legislative action incident to a change of name to Clemson University in 1964. While the original purposes of Thomas G. Clemson remain valid, the present purposes of Clemson University transcend his emphasis on "agricultural and mechanical industries."

Clemson University is an educational institution designed to facilitate learning. The University aims to prepare those who enroll in its courses to cope with the world they will actually encounter. The University offers to these individuals, through education, a broader meaning to their lives and a way to enjoy life to a fuller extent. This involves transmitting the techniques required of problem-solvers and leaders, and at the same time, inculcating ideas of truth, humanity, and justice. These values must be manifest within the University itself. The educational process must be carried on in an atmosphere of rationality, civility, shared concern, and mutual respect among members of the academic community.

Clemson University is a research institution which expands knowledge in response to the needs of the faculty, the student, the community, and the nation. Research programs are directed toward both practical application and theoretical knowledge.

Clemson University is a public-service institution which makes its expertise immediately available to the community. Through research, extension programs, special institutes, and other devices, the University seeks solutions to and disseminates information about problems in the community.

Clemson University is an institution, established and supported by the community, which conserves, enhances, and gives continuity to the complex knowledge of modern life. This conservative function is balanced by, and at times is in conflict with, the function of the University as an instrument of change, as an innovator expanding knowledge, as a stimulator of creative thought, and as a home for speculative and critical thought.

Clemson University in its institutional roles recognizes that free inquiry is essential to intellectual progress, that open competition among a variety of skills and viewpoints is the surest safeguard of truth. The University does not take an official position on disputed questions of scholarship, on political questions, or on matters of public policy. No individual or group can presume to speak for the institution on such matters or can speak for the University on matters other than those directly concerning the institutional roles of the University.

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 13, 1970 (Continued)

This motion passed by a vote of 26 to 2.

Prof. J. C. Fanning reported for the Research Committee that their questionnaires concerning campus research facilities are being returned and he will prepare a report for the Senate. He added that a problem that had come up involving a teacher's having Central Services reproduce copyrighted material for distribution free of charge to students was still under study; at the present time, such reproduction will be undertaken provided the faculty member signs a legal release.

Prof. M. W. Jutras for Ad Hoc Committee A reported continued work on revision of the Manual for Faculty. Prof. D. R. LaTorre reported for Ad Hoc Committee B that there was no action taken since the last Senate meeting.

Prof. V. S. Hodges reported for the Committee on the University Union that response to the questionnaire about faculty facilities in the building had been, in his opinion, disappointing. (Of the 608 individuals requested to express written opinions concerning the facilities, only 107 had done so.) The greatest interest was shown in a cafeteria and/or faculty lunch rooms, but these would probably not be included in the Union complex because of the convenient location on campus of the two main cafeterias. Prof. Hodges said that because of the small interest in faculty facilities, the Ad Hoc Committee was no longer needed. He moved its dissolution, seconded by Prof. G. D. Riggs. The motion was passed 25 to 1.

There was concern expressed from the floor that the Administration had not as yet indicated their response to the August Senate resolution asking for reconsideration of the apportionment of money within the Union project. President Prochaska was instructed to request a specific answer. It was also moved by Prof. H. A. Vaughn, seconded by Prof. G. D. Riggs, that Mr. Stan Nicholas be invited to address the Senate on the Union plans, with specific emphasis on the allocation of funds in the project, at the next Senate meeting. The motion passed 14 to 10.

Under the heading of new business, Prof. J. L. Idol brought to the Senate the concern of the Admissions and Scholarship Committee for further modification of the University's graduation exercises. Prof. B. J. Skelton moved that the committee be instructed to study the matter and make recommendations. Seconded by Prof. D. R. LaTorre, the motion passed unanimously. Prof. Idol then moved, seconded by Prof. LaTorre, the creation of Senate Ad Hoc Committee C for the special purpose of studying and making recommendations about graduation. This motion passed unanimously.

On behalf of his committee, Prof. Idol then moved, seconded by Prof. V. S. Hodges, that the Senate support the recommendation of the University Library Committee which appeared in the Clemson Newsletter of September 15, 1970 as follows:

MINUTES OF THE MEETING OF THE FACULTY SENATE, OCTOBER 13, 1970 (Continued)

The University Library Committee, as the faculty's representatives, should be consulted whenever the allocation of library space is being considered.

The motion to support the Library Committee's recommendation passed unanimously.

A resolution was proposed by Prof. J. L. Arbena on behalf of Prof. H. D. Adams, who had to leave the meeting early, that the Faculty Senate state that denial of entry to the classrooms of the University solely because of length of or style of wearing hair is an improper exercise of the authority granted the faculty. The motion was seconded by Prof. W. E. Gettys. There was concern expressed from the floor that such a specific statement was in violation of the spirit of the earlier Senate motion in which the Senate refrained from dictating suggested wording of the student dress code, pending the Student Senate's consideration of changes in the code. There was also concern that the wording of this particular resolution made it appear that the Senate sided wholly with the student whose denial of entry into a classroom on several grounds is currently in debate; this would be a distortion of the Senate's position, since the Senate understood that more was involved in this particular case than the student's hair style. There was a motion from the floor to table the Arbena motion, passed by a vote of 16 to 10.

The meeting was adjourned at 6:35.

Absentees: R. F. Borgman; T. R. King; G. W. Gray.

MINUTES OF THE MEETING OF THE GRADUATE COUNCIL, NOVEMBER 13, 1970

Dean A. E. Schwartz convened a meeting of the graduate council at 3:00 p.m., November 13, 1970 in Room 205, Brackett Hall.

Council members present were: R. M. Allen, W. C. Godley, H. W. Graben, V.S. Hodges, A. K. Jensen, W. L. Vick, J. S. Wolf, A. S. Tombes, J. L. Lundberg attended the meeting on behalf of G. D. Riggs.

The minutes of the Graduate Council meeting of Oct. 23 were approved as written.

A motion was moved and seconded that the Graduate Council Subcommittee report on research in absentia be approved by the council. A lengthy, indepth discussion ensued the motion. After much debate, a substitute motion declaring that the subcommittee reconvene and conduct further study on this policy, was unanimously approved.

Time did not permit further consideration of the agenda, thus consideration was given to those times available for a special session of the council. After a tentative meeting time of 9-11:00 a.m., Nov. 19, was agreed upon, the meeting was adjourned.

CHEMISTRY AND GEOLOGY

J. W. Huffman (Prof) presented a lecture on, "Synthetic Approaches to Bicyclic Sesquiterpenes," Oct. 14 at Furman University, Oct. 26 at Bellarmine-Ursuline College and Oct. 27 at Eastern Kentucky University.

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) and Donald B. Stafford (Asst Prof) served as invited lecturers at a Seminar for Traffic Engineering Technicians held at the University of South Carolina on Oct. 5.

D. B. Stafford presented a paper entitled "Coastal Erosion Reconnaissance by Aerial Photographic Measurements" at the meeting of the Georgia-South Carolina Chapter of the American Society of Photogrammetry in Atlanta on Oct. 6.

COLLEGE OF ARCHITECTURE

George C. Means (Prof) presented a paper, "Patient Care Systems for Mental Health" at the Seventh Annual Architect/Researchers Conference, Cincinnati, Ohio sponsored by the American Institute of Architects on Nov. 3.

Joseph L. Young (Prof) was elected President of the South Carolina Chapter of the American Institute of Architects at Columbia, Oct. 17.

H. H. Williamson (Assoc Prof) presented a paper, "Comparative Spatial Aptitudes Between Architectural and Non-Architectural Students" at the annual Environmental Design Research Association International Conference held in Pittsburgh, Penn., Oct. 28-30.

COLLEGE OF ENGINEERING

L. G. Rich (Dean) served as Secretary to the Commission on Education for the Engineering Profession at the annual meeting of the National Association of State Universities and Land-Grant Colleges in Washington, D.C. on Nov. 8-9.

ECONOMICS

B. R. Skelton (Assoc Prof) presented a talk to the S. C. Poultry Improvement Association in Columbia on Sept. 29, entitled "Unions and the Poultry Industry."

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Remaining speakers in the College of Industrial Management and Textile Science Seminar Series are: Mr. J. Kelly Sisk, President and Publisher, The Greenville News-Piedmont Company, Greenville, Feb. 11, 1971; Mr. Charles K. Cross, President, The South Carolina National Bank, Columbia, March 11, 1971; and Captain Theodore S. Stern, President, The College of Charleston, Honors and Awards Day speaker, April 7, 1971.

A course entitled "Flame Retardancy of Fibers" will be held Dec. 9-11.

A course on the "Application of Computers to Color Science" will be held during the week of Dec. 7-11. A unique feature of this seminar - several of the latest instruments used in advanced color matching will be on display for examination and inspection by the seminar participants and also to the public.

A seminar entitled "Chemical and Physical Methods for Treating Textile Wastes" will be held Jan. 20-21, 1971.

ELECTRICAL AND COMPUTER ENGINEERING

T. L. Drake (Assoc Prof), G. D. Van Voorhis and P. H. Nelson (Kennecott Explorations) authored a paper entitled "A Model of Induced Polarization" which was presented at the 40th Annual International Meeting, The Society of Exploration Geophysicists, in New Orleans on Nov. 10.

B. E. Gilliland (Assoc Prof) presented an invited paper on Instrumentation and Computer Applications in Medicine at the Kingsport, Tenn., Section of the American Society of Mechanical Engineers, Nov. 5.

J. W. Lathrop (Prof) has been appointed to a 3-year term of membership on the Institute of Electrical and Electronic Engineer's (IEEE) Committee on Hybrid Microelectronics. This committee was recently formed within the Parts, Materials, and Packaging Group to sponsor, encourage, and coordinate technical meetings, publications, and standards activity relating to this rapidly growing technology.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Gerald R. Carner (Asst Prof) attended the Annual Conference of Southeastern Peach Workers in Raleigh, N. C., Oct. 26-28. He presented the results of peach insect research in South Carolina for 1970 at this conference.

A Memorandum of Understanding with DeFore Mill, A Division of Deering Milliken, Inc. and the Department of Entomology and Economic Zoology has been approved for research work with the pecan trees growing on their property. The best cultural practices and the best known insect control practices will be put into effect.

ENVIRONMENTAL SYSTEMS ENGINEERING

The ESE Department sponsored the annual Operators Training Short School at Sumter Tech Oct. 28-30. There were 110 operator participants.

A. R. Abernathy (Assoc Prof) presented a speech entitled "Results of Lake Greenwood Eutrophication Studies" at the Twenty-first Annual Meeting of the Pollution Control Section of the S. C. Water and Pollution Control Association held in Columbia Nov. 12-13. He was an organizer of the Technical Session and was elected chairman for next year.

The ESE Department in cooperation with the Chemical Engineering Department sponsored the Sixth Annual Seminar on Air and Water Pollution Control held in Earle Hall Nov. 19-20. A. R. Abernathy (Assoc Prof) in cooperation with F. C. Alley (Prof) planned the Seminar.

T. M. Keinath (Asst Prof) presented a speech entitled "Chemical Treatment of Industrial Wastewaters" at the Sixth Annual Seminar on Air and Water Pollution Control, Nov. 19-20, sponsored by the College of Engineering, American Institute of Plant Engineers and the S. C. Pollution Control Authority.

Jon C. Liebman, Director, Environmental Systems Analysis Program, The John Hopkins University, Baltimore, Md., presented a seminar entitled "Subjective Equity in Basin-Wide Waste Treatment Optimization" Nov. 12 at Rhodes Engineering Research Center.

HORTICULTURE

T. L. Senn (Prof and Hd) has been selected by the American Society for Horticultural Science to be their representative at the Third Conference on Education in Biology sponsored by the American Institute of Biological Sciences. The Conference was held at the University of Illinois, Chicago, Nov. 16-17.

Dr. Senn was elected Chairman of the Education Committee of the American Society for Horticultural Science at the annual meeting held at Miami Beach, Nov. 1-4. Papers presented by staff members of the department were:

C. E. Gambrell (Asst Prof), E. T. Sims, Jr. (Assoc Prof), and G. E. Stembridge (Assoc Prof), "Evaluation of Plant Growth Regulators in Peach Production."

E. T. Sims, Jr. (Assoc Prof), "Sampling Methods for Determining Peach Quality and Maturity."

G. E. Stembridge (Assoc Prof) and M. S. Cely (Grad Stu), "Effects of Gibberellins and 6-Benzyladenine on the Shape and Fruit Set of 'Red Delicious' Apples."

J. R. Haun (Assoc Prof) and A. J. Lewis III (Grad Stu), "Correlation of Environmental Factors with Growth and Development of Dianthus caryophyllus, L."

INDUSTRIAL MANAGEMENT

B. J. Todd (Prof) served as program chairman for the Sixth Annual Meeting of the Institute of Management Science (TIMS) - Southeastern chapter which was held at the Clemson House Nov. 5-6.

The following faculty members delivered presentations at The Institute of Management Science (TIMS) meeting:

T. H. Gunter (Asst Prof) entitled "The Use of Biographical Data in Selection, Training and Counseling of Textile Salesmen."

H. H. Macaulay (Alumni Prof, Econ) entitled "The Optimum Quality of the Environment and Means of Achieving It."

G. D. Riggs (Assoc Prof) entitled "The Medical Environment."

R. E. Toomey (Visiting Lecturer), luncheon speaker.

C. H. Whitehurst (Prof and Hd), entitled "Management Education in the UK: Its Direction and Non-Direction."

R. F. Zant (Asst Prof) entitled "Models for the Interpretation of Cost Variances."

Carl L. Dyer (Asst Prof) has been selected to serve on the Committee for Elections of the Southeastern chapter of TIMS for 1970-71. Mr. Dyer co-authored an article with G. D. Riggs, "Quantitative Marketing, Why Not?" for the Textile Marketing Letter, Vol. V, No. 8, Oct. 1970.

C. H. Whitehurst (Prof and Hd), B. J. Todd (Prof), B. J. Prochaska (Asst Prof, Math), E. A. LaRoche (Assoc Prof), and R. L. Brown (Part-time Visiting Lect) participated in an annual all-day conference held by the Palmetto Section of the American Society for Quality Control held in Greenville on Oct. 31.

INTERDISCIPLINARY STUDIES

S. F. Hulbert (Assoc Dean) presented a paper entitled "Use of Ceramics as Materials of Construction for Artificial Organs," at the 1970 Materials Engineering Congress, Cleveland, Ohio, Oct. 22. Dr. Hulbert and P. J. Aragon (post-doc) presented a paper entitled "Corrosion of Prosthetic Materials: A Critical Review," at the annual TMS-AIME fall meeting, Cleveland, Oct. 21.

S. F. Hulbert and T. L. Bridges (Med. Col. of S.C.) presented a paper entitled "Potential Use of TiO_2 as a Cardiovascular Implant Material," at the fall meeting of the Basic Science Division, Am. Cer. Soc., Gatlinburg, Nov. 6.

R. R. Moore (Asst Prof), S. F. Hulbert, C. D. Talbert (Grad Stu), R. G. Topazian (Hd, Oral Surgery, Med. Col. of Ga.) and W. B. Hamner (Asst Prof, Med. Col. of Ga.), presented a paper entitled "Use of Porous Ceramics in Implant Dentistry," at the 19th Annual Symposium, The American Academy of Implant Dentistry, Las Vegas, Nev., Nov. 6.

INTERDISCIPLINARY STUDIES (Continued)

H. R. Bungay, III (Prof) has published a note "Hanging Magnetic Stirrer Which Minimizes Cell Disruption" in the Oct. issue of the Journal of Applied Microbiology.

MATHEMATICS

John Kenelly (Prof and Hd) representing Clemson University and the Mathematical Association of America, visited Virginia Commonwealth University on Nov. 12-13 and delivered "A Geometric Approach to Linear Programming" and "Elementary and New Theorems in Convexity." The MAA visiting lecturer series is funded by the National Science Foundation.

Andrew Sobczyk (S. Maner Martin Prof) gave a talk on Nov. 11 to the Society of Philosophic Artists (Mathematics Club) at Daniel High School, on the topic "Finite and Infinite Mathematics."

PHYSICS

P. B. Burt (Assoc Prof) presented a paper at the 1970 annual meeting of the Division of Plasma Physics in Washington, D. C., on Nov. 5, entitled On Perturbation Theory in Toroidal Plasma.

A number of faculty members attended the joint meeting of the Southeastern Section of the American Physical Society with the annual fall meeting of the American Physical Society held in New Orleans, La., Nov. 23-25. They presented 9 papers at this meeting reporting on their recent research activities. In addition, H. E. Vogel (Prof and Hd) chaired a session of contributed papers in the area of superconductivity. The following papers were given:

Numerical Analysis of an Integral Approximation for Potential Scattering by W. E. Gettys (Assoc Prof), S. L. Chang (Grad Stu), and P. B. Burt.

An Interpretation of the First Substage of Electron Irradiated Magnesium by T. N. O'Neal (former Grad Stu) and R. L. Chaplin (Assoc Prof).

Thermal Reorientation of V_K Centers and Annihilation of NH_3Cl Centers in Single Crystal Ammonium Chloride by J. C. Byrd (Grad Stu) and F. J. Keller (Assoc Prof).

Ionic Conductivity of Zinc Doped Silver Chloride by C. G. Vaughn (Grad Stu) and M. G. Miller (Assoc Prof).

Calculation of the Driving Force for Superconducting dc Transformers by M. D. Sherrill (Assoc Prof).

The Effect of Uniaxial Tension on the Superconducting Transition Temperature of Sn and Sn Alloys by D. R. Overcash (former Grad Stu), J. W. Cook (Grad Stu), E. P. Stillwell (Prof) and M. J. Skove (Prof).

CALENDAR OF CAMPUS EVENTS

Dec.	1	Tues.	4:00 p.m.	Dr. J.C. Acton, Assistant Professor, Food Science Department, will speak on "Meat Protein as Emulsion Stabilizers" at the Food Science Colloquium Series in F-150 P&AS Building.
Dec.	1	Tues.		Clemson Choir - Daniel High School Auditorium.
Dec.	1-	Tues.-		Ninth Annual Farm & Small Business Income Tax
Dec.	3	Thurs.		Course for Tax Consultants - Poinsett Hotel, Gold Room, Greenville, S.C.
Dec.	2	Wed.	1:00 p.m.	Agricultural Engineering Seminar, Conference Room, Ag. Eng. Building. "The Challenge of the Imitation Products on Agriculture." E.J. Mostyn, Assistant Land Commissioner, Ministry of Agriculture, Fisheries and Food, England.
Dec.	3	Thurs.		Basketball - Furman at Clemson.
Dec.	3	Thurs.	3:00 p.m.	Agricultural Economics & Rural Sociology Seminar - M. Burrell Richardson, Clemson University; "The Costs of Treating Liquid Waste in South Carolina Textile Industry" - Room 1, Kinard Lab. of Physics.
Dec.	3	Thurs.		Agronomy Seminar - C.C. Vick; Electrochemical Behavior of Soil Colloids.
Dec.	4	Fri.		Physics Colloquium - Dr. Eugen Merbacher, Department of Physics, University of North Carolina, will speak on Quantum Physics and Electronics" - Room 101, Kinard Laboratory of Physics.
Dec.	5	Sat.		Basketball - Mercer at Clemson.
Dec.	5	Sat.		Freshman Basketball - vs Anderson.
Dec.	5-	Sat.-	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
Dec.	6	Sun.		
Dec.	7	Mon.		Exams begin.
Dec.	11-	Fri.-		Sponsored by the Clemson Architectural Foundation --
Jan.	10	Sun.		Staging the Visual -- College of Architecture: Exhibition of Student Work - Rudolph Lee Gallery.
Dec.	12-	Sat.-	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
Dec.	13	Sun.		

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 9

December 15, 1970

RESEARCH COMMITTEE RECOMMENDATION OF THE FACULTY SENATE

The Research Committee has requested that the following report on its questionnaire to the faculty involved in research be published in the Newsletter.

Research Questionnaire Results

A recent poll by the Research Committee of the Faculty Senate to determine needs for centralized physical research facilities for the faculty elicited 155 responses to 310 questionnaires.

Needs for the following types of centralized facilities were expressed by the number of researchers indicated after each type of facility: photo lab with drafting services, 49 (These facilities are available - see the article below.); electronic instrument shop, 29; chemical stores, 28; analytical services, 17; animal facility, 12; electron microscope, 10; glass shop, 7; liquid nitrogen supply, 2; liquid scintillation counting facility, 2.

Lack of technicians and subprofessional help is a problem that obviously is limiting the accomplishments of Clemson University researchers. This problem was not prelisted on the questionnaire, but it was mentioned as important by 27 researchers. The committee also has noted that some type of interdepartmental billing procedure could resolve many of our research service needs.

Photographic and Art Services Offered by the University Communications Center

The University Communications Center, located in the basement of the Plant and Animal Science Building, provides a full range of color, black and white and monochrome slide production through its Photographic Service. Limited art services are also provided by the University Communications Center. However, TV production has first call on art services and as a result of this load, little art service can be provided for slides or overhead transparencies unless considerable time is allowed for the work.

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, NOVEMBER 3, 1970

Present: D. R. LaTorre (Chairman), W. E. Castro, Bill Evans, J. A. Hash, Opal Hipps, M. L. Hockenberry, M. W. Jutras, Ralph Knowland, R. E. Schoenike, J. M. Wannamaker, H. H. Wilson, J. W. Gordon Gourlay (Secretary).

Minutes of the meeting of October 6 were approved.

Dr. LaTorre indicated that Mr. Harry Durham had requested a joint meeting

(Continued on Page 2.)

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, NOVEMBER 3, 1970
(Continued)

between the University Library Committee and Communications Resources Committee and distributed:

- a. Memo from Mr. Harry Durham to Dr. Don LaTorre dated September 4, 1970 on the subject of the joint meeting between the Library and Communications Resources Committee.
- b. Draft of Recommendations from Communications Resources Committee to Library Committee.
- c. Report by Dr. J. L. Idol to University Library Committee, November 5, 1968.
- d. Report by Dr. J. L. Idol submitted to University Library Committee, February 4, 1969, "Film and Phonograph Facilities in Selected Departments and Agencies at Clemson."

Dr. LaTorre read a letter from Dean C. B. Green indicating his desire that the University Library Committee comment on a resolution of the Student Senate entitled, "Protesting the Disruption of the Library and Violation of Policy." After a lengthy discussion of the resolution, the Committee instructed its chairman to comment by, (a) reiterating the statements of paragraph 2 of the April 7, 1970 minutes concerning the use of the library for honorific purposes, (b) expressing the general agreement of the Committee with the spirit of the resolution and (c) publicizing to all officials of the university the Committee's policy regarding displays in the library.

Time of next meeting - December 1 at 4:00 p.m.

ENGLISH

Jerry Blanche (Instr) was co-director of a Speech and Drama Workshop/Festival for South Carolina high schools held at Columbia College on Nov. 18. The workshop was sponsored by the South Carolina Speech Association of which he is vice-president.

Harriet Holman (Assoc Prof) has edited Thomas Nelson Page's North African Journal, 1912, published by Field Research Projects.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins, Jr. (Prof) attended and participated in the Colloquium on Leucocytozoon disease at the Patuxent Wildlife Research Center, Laurel, Md., Nov. 18-21.

G. R. Carner (Asst Prof) and T. E. Skelton (Asst Prof) attended the annual Cumberland-Shenandoah Fruit Workers Conference in Winchester, Va., Nov. 19-20. Dr. Carner presented the 1970 results of peach insect control studies in South Carolina while Dr. Skelton presented the 1970 results of studies on apple insects.

EXPERIMENTAL STATISTICS

W. P. Byrd (Prof and Chairman) will be visiting professor in the Department of Statistics at Oregon State University during the winter and spring quarters, Jan. 1 to June 30, 1971.

FOOD SCIENCE AND BIOCHEMISTRY

D. M. Henricks (Assoc Prof) presented a lecture to undergraduate students in biology and a lecture to the faculty of the Biology and Chemistry Departments at Furman University, Nov. 10. The subjects of the lectures were: "The Endocrine Basis of the Reproduction in Mammals" and "Some Biochemical Studies of Mammalian Reproduction."

INTERDISCIPLINARY STUDIES

T. B. Young (Grad Stu), D. F. Bruley (Assoc Prof, Chem Engr) and H. R. Bungay, III (Prof) authored the paper "A Dynamic Mathematical Model of the Chemo-stat" published in the J. Biotechnology and Bioengineering, Vol. XII, pp. 747-769 (1970).

J. E. Lemons (Asst Prof) presented a talk before the F-4 ASTM Committee on surgical implants in Boston, Mass. on Nov. 19. The talk was on the use of Quantitative Microscopic Techniques for Evaluation of Prosthetic Materials.

MATHEMATICS

William H. Ruckle (Assoc Prof) presented a paper entitled "Reflexivity of $L(E, F)$ " at a meeting of the American Mathematical Society in Athens, Ga. on Nov. 21 and also presided over a session of contributed papers in analysis.

PHYSICS

A number of faculty members attended the joint meeting of the Southeastern Section of the American Physical Society with the annual fall meeting of the American Physical Society held in New Orleans, La., Nov. 23-25. Six of the papers presented at this meeting were listed in the last Newsletter, but three items were left off so that certain economies in publishing costs might be made. Those items which should have appeared in the last Newsletter regarding this meeting follows: Anomalous Paraconductivity of Superconducting Whiskers Above T_c by J. W. Cook (Grad Stu), M. J. Skove (Prof) and E. P. Stillwell (Prof). Effect of Bismuth Impurity on the Superconducting Critical Field of Tin by C. W. Ulbrich (Asst Prof) and C. R. Green (Grad Stu).

B. E. Powell (West Georgia College) and M. J. Skove published an article entitled "Combination of Fourth-Order Plastic Constants of Fused Quartz" in the November issue of The Journal of Applied Physics.

SOCIAL SCIENCES

W.C. Capel (Asst Prof) authored a paper with G.T. Stewart, M.D. Tulane: "A Comparative Survey of patients at different clinics in New Orleans" presented on the Panel on Epidemiology and Methadone at the Third National Conference on Methadone Treatment in New York, Nov. 14-16, under sponsorship of National Institute of Mental Health and National Association for the Prevention of Addiction to Narcotics.

Frank A. Burtner (Prof) has recently been appointed Premedical Advisers' Representative for the Southern Region to the Committee on Secondary Schools and Colleges, Group on Student Affairs for the Southern Region of the Association of American Medical Colleges in Los Angeles, California, October 27-November 1.

TEXTILES

D.W. Lyons (Assoc Prof) presented a paper on "Industrial Noise Abatement for Textile Plants" at the conference on "Innovations in Instrumentation as Applied to the Textile Industry," sponsored by the Instrument Society of America, Textile Industries Group, on Oct. 20.

E.A. Vaughn (Asst Prof) was recently elected to the Board of Governors of the Textile Quality Control Association for a term to run to 1972.

COMMUNICATIONS CENTER

The Communications Center has recently completed three films, "Camp Hope" -- featuring the University's summer camp for the mentally retarded, and promotional films for Air Force ROTC and the Block and Bridle Club.

The department assisted WFBC-TV in Greenville with a 30 minute documentary on air pollution shown on Nov. 19. Interviews with Dr. Chris Alley, Dr. Luther Baxter, and Dr. Hugh Macaulay were included in the documentary.

COUNSELING CENTER

Dr. Virginia S. Hardie (Dir) was one of the featured speakers to the National Mental Health Association at its annual meeting in Los Angeles, Calif. Nov. 19.

CALENDAR OF CAMPUS EVENTS

Dec. 17	Thurs.	Midyear graduation.
Dec. 17	Thurs.	Joint Army/Air Force Commissioning Ceremonies.
Dec. 18-	Fri.-	Basketball - Vanderbilt Tournament (SMU, Vanderbilt
Dec. 19	Sat.	St. Johns, Clemson).
Dec. 25	Fri.	Christmas Day.
Jan. 1	Fri.	New Year's Day.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

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Vol. 10 No. 10

January 1, 1971

UNIVERSITY DISCIPLINARY COMMITTEE

In a recent letter to certain faculty members and students of Clemson University, asking them to serve as alternates on the University Disciplinary Committee, President R. C. Edwards explained and defined the duties and functions of the Committee. His letter reads as follows:

"The University Disciplinary Committee has authority to hear cases in which:

1. Clemson University property is damaged or destroyed.
2. A student or employee of Clemson University is physically injured as a result of an alleged violation.
3. The student who allegedly violated the regulations suffers from a mental or psychological disorder.
4. Acts were committed which disrupt by use of force or violence the orderly processes of the University, thereby preventing officials or students from engaging in the pursuit of their duties or studies.
5. Federal law, South Carolina law or Clemson University ordinances may have been violated.

The University Disciplinary Committee is composed of the following:

B. J. Prochaska, President of the Faculty Senate
Gregory A. Jones, President of the Student Government
Paul W. Mims, Jr., President of the Student Senate
Jo Ann McNatt, Faculty Senate Selectee
Perry B. DeLoach, Presidential Appointee
Melvin K. Richardson, Presidential Appointee

In order to provide for alternates to serve in the absence or one or more members of the Committee, I am requesting each of you to accept such alternate appointment. In each case you have been recommended to me by the President of the Faculty Senate or the President of the Student Body as appropriate.

You will be called upon to fill any vacancies occurring in a particular hearing to insure that the Committee will at all times be composed of three (3) faculty representatives and three (3) students. If an occurrence should develop where it is necessary to convene more than one panel for hearings, the alternate members will be convened as an additional Disciplinary Committee, composed of an equal number of faculty and students. An initial meeting will be called primarily to discuss procedures, and thereafter you will be requested to meet only as required.

Accept my appreciation for your favorable consideration in serving in this most important capacity."

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 10, 1970

The meeting was called to order at 4:18 and the minutes approved as circulated. In response to the Senate's request from their October meeting, Vice-President for Development Stanley G. Nicholas presented a report to answer Senate questions on planning for the proposed University Union.

First, Mr. Nicholas presented the reasoning behind the location of the two all-student centers, the main Union building south of the Library, and the student athletic area at the present Fike Field House; primarily the reasoning comprised the centrality of location for the main building and the need for fields and outdoor courts near the athletic facilities. Mr. Nicholas showed architects' preliminary drawings for the renovation of Fike Field House and reported the preliminary estimated cost to be around \$2-million, not including renovation of the present administrative wing now occupied by the Athletic Department. He then reviewed projected facilities for the main Union Building and reported that the preliminary estimates of that cost ran near \$4.6-million. He emphasized that some revision of plans may have to be made, leaving some elements out of one or both plans for the present. Any elements left out initially would be so designed as to permit additions at a later date. He added that the probable priority in order of constructing these components of the over-all Union plan was first the Fike renovation, second the Union building, and last, anything else that entered the total picture.

There remains the problem of housing the athletes and coaches who would be displaced from the renovated Fike Field House if student athletic activities were to occupy the entire building including the administrative wing. Present plans include a separate building on Stadium Road for the Athletic Department. The Senate expressed concern that this building might necessarily take funds from the all-student projects, estimates for which already exceeded available funds, thereby curtailing even more drastically the facilities which would be available for use of the student body at large. Mr. Nicholas agreed that funds for the athletes' facilities would probably have to come from the Union funds, but could not estimate how much this might alter prospects of an adequate Union.

In response to the Senate question as to whether or not there has been a re-evaluation of the relative costs and merits of building a new student facility, in contrast to the present plan of renovating Fike, Mr. Nicholas was unable to answer but said an architect's estimate would not be difficult to obtain. Reminded that at the General Faculty Meeting in August President Edwards had stated that these plans were being reassessed, Mr. Nicholas was unable to confirm whether any such examination has been made. In response to a question concerning the relationship, if any, between the proposed new building for the Athletic Department and the recruiting of new coaches, President Prochaska reported to the Senate that President Edwards has personally and unequivocally stated that there is none. In response to a direct question as to whether or not the decision to renovate Fike and build a separate athletic facility had not, in fact, already been made irrevocably, Mr. Nicholas replied that to the best of his knowledge such decisions were only final when contracts for construction were signed. In response to a question asking whether the

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 10, 1970 (Continued)

amount now allotted to such "extras" as a redesigned facade for the renovated Fike might not be better spent on expanding its interior facilities, Mr. Nicholas replied that he did not know that this allotment was more than just a suggestion from the architects.

Further discussion of the matter included the Senate's concern that funds for the proposed athletes' facilities should not take away from present plans for academic needs. Senate members expressed concern over the idea of taking an area where dikes and a pumping station had been built by the U. S. Corps of Engineers to make land useable for experimental research and turning it into paved and graded playing fields. President Prochaska was requested to continue discussion of the whole matter with the Administration. It was also suggested that the Senate press for representation on any committee which determined priorities of this sort for the University. By vote, the discussion was terminated at 5:20 to continue the remaining business on the agenda.

President Prochaska announced his attendance at several meetings during the past month: 1) he represented Clemson University at the inauguration of Duke University's president; 2) he attended the meeting of the Athletic Council, where the chief order of business was the ACC's 800 rule and Clemson's position, which is that if the difficulty cannot be resolved within the ACC (Clemson's first choice), Clemson is willing to participate in the formation of a new conference. At present, the alternative of the University's becoming "independent" is not being considered. 3) He attended the organizational meeting of the Tri-Level Council, which will soon begin meeting weekly; and 4) he attended the meeting of deans and department heads with representatives of the Atlanta office of HEW, who are assessing Clemson's cooperation with the equal employment opportunities policies.

President Prochaska reported that three Student Senate bills had been forwarded to the Faculty Senate for evaluation and possible action: a bill requesting the "Forgivable F" be extended to all students; a bill on the dress code; and a bill concerning night quizzes. These were passed to the appropriate committees for study and recommendations.

President Prochaska also reviewed Administration action on the Senate's resolutions from the October meeting. None called for direct administrative action, but a favorable reception was given the Senate's statement of University purpose, with the reservation that "community" seemed to be used in the statement in two different senses.

It was reported that the Welfare Committee took no action in the previous month.

For the Admissions and Scholarship Committee, Professor John Idol reported the results of the survey, taken at the Administration's request, of opinion from the faculty at large about deletion of the re-examination a senior may now request to raise his G.P.R. 254 wanted deletion of the rule; 115 wanted the

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 10, 1970 (Continued)

rule retained; 2 ballots were returned unmarked; the remaining faculty did not vote. It was pointed out that this ratio (just over 2-to-1) was nearly identical to that of the vote in the Senate on this same problem, 20 to 9, which seemed to answer the Administration's question of whether or not the Senate accurately represented the whole faculty's view on this question. It was requested that this information be passed on to the Administration with a request for their action on the Senate's resolution for deletion of the re-examination rule.

In response to the Senate's request of the previous meeting, Professor Idol moved for his committee, Professor G. D. Riggs seconding a request that the Administration replace the current "Forgivable F" ruling with the one voted originally by the Senate on October 14, 1969. The motion, which passed unanimously, reads:

The Faculty Senate declares the current system of the "Forgivable F" for first semester freshmen totally unacceptable and requests the Administration to implement the Faculty Senate's original resolution beginning with the class which enters in the summer of 1971.

Professor J. C. Fanning presented a mimeographed copy of the results of the Research Committee's survey of the need for centralized facilities for physical research, and moved that it be submitted to the Clemson Newsletter for printing as a separate item, rather than as part of the minutes of the Senate. Seconded by Professor W. C. Whitten, the motion passed unanimously. Results of the survey showed the following requests for central facilities: for photo lab with drafting services, 49; electronic instrument shop, 29; chemical stores, 28; analytical services, 17; animal facility, 12; electron microscope, 10; glass shop, 7; liquid nitrogen supply, 2; liquid scintillation counting facility, 2.

Professor H. D. Adams reported that the Policy Committee had taken no action since the last Senate meeting.

For Ad Hoc Committee A, Professor M. W. Jutras being absent, Professor John Idol reported that preliminary revision of the Faculty Manual is complete. Committee A will hold a final review of its suggestions, and the Senate should then anticipate a special session called to consider adoption of that suggested revision.

For Ad Hoc Committee B, Professor R. F. Borgman made available two information sheets outlining the guidelines for selection of graduate faculty and the functions of graduate faculties at other universities. On behalf of his committee, he then moved, seconded by Professor H. D. Adams, the adoption of a resolution outlining firmly the composition and function of the Graduate Council. The motion passed with only one negative vote, after opinion expressed that to give two representations to Colleges offering a Ph.D. and only one to Colleges with just an M.A. program represented discrimination against Colleges where the terminal degree was in fact an MA or its equivalent. In full, the motion as approved reads:

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 10, 1970 (Continued)

A graduate program comprises a course of study beyond the baccalaureate level, usually leading to an advanced degree. Since the quality and excellence of graduate instruction should be of constant concern to every institution offering graduate work, it is essential that provisions for graduate instruction should include an adequate administrative organization under the direction of a designated administrative officer, the Dean of Graduate Studies.

All policies and regulations affecting graduate curricula and requirements leading to graduate credits, certification, and degrees shall be approved by the Graduate Council.

The Graduate Council, consisting of two members from each academic College or School having a doctor's program and one member from each academic College or School having only a master's program, shall be nominated by the Dean of the appropriate College or School and appointed by the Dean of the University. Graduate students and faculty members will be invited to attend Graduate Council meetings. Appointees to the Graduate Council shall be members of the Graduate Faculty and shall serve for a term of three years. The Graduate Dean will be an ex-officio member of the Graduate Council and serve as its Chairman.

Deans of the academic Colleges and Schools shall have the responsibility of designating faculty members as members of the Graduate Faculty. Qualifications for membership on the Graduate Faculty from a given academic College or School shall be determined by the Dean of that College or School and the Department Chairmen within that College or School.

Graduate Faculty members must be productive, creative scholars. Productive scholarship requires devotion to the discovery, development, and refinement of knowledge and techniques in one's academic field, usually resulting in accomplishments by students, or publications for evaluation and criticism by peers.

The Graduate Faculty shall perform no administrative function, but serve as a source of Graduate Council members of theses directors.

Next, as recommended by the Admissions and Scholarship Committee, Professor John Idol moved the adoption of a resolution to delete from college regulations the provision that a graduating senior may retake the final exam for any course in which he made an F. This was seconded by Professor W. C. Whitten. It was pointed out in response to a question as to what would replace this "second chance," that the committee felt that the present "Forgivable F" for freshmen gave every student an opportunity to have a higher overall G.P.R. at graduate time, so that a single F should not make that much difference toward graduation, and that students now had the chance to take some courses on a pass-fail basis, which might also improve their final G.P.R.

MINUTES OF THE MEETING OF THE FACULTY SENATE, NOVEMBER 10, 1970 (Continued)

at graduation time. A student should, of course, pass by more than the margin represented by a single examination any class essential to his major area. A dissenting opinion was expressed by Professor K. Lehotsky, who said his College felt that these facts did not really replace the present "second chance" for seniors, but they apparently did not object to that. It was also pointed out that faculty opinion had run 2-to-1 in favor of deletion of the "second chance" for improving over-all G.P.R. by a graduating senior, and the Senate's objection to placing the burden for a student's failure on the shoulders of a single faculty member (who is clearly not to blame for the student's previous poor record) was reiterated.

The motion as presented read:

The following statements should be deleted from the present scholastic regulations:

"Examination of F. Received in Last Semester. A candidate for a degree who in the semester immediately prior to graduation fails to graduate because of an F on one course taken in that semester may stand a special examination on the course provided:

- 1) That the candidate can furnish evidence of having done satisfactory study for the examination.
- 2) That the examination is not given until after the regular degree date.
- 3) That the candidate has fulfilled, prior to the due date for candidates' grades, all other requirements for his degree except those which can be fulfilled by passing the examination.
- 4) That the candidate by removing the F by examination will furnish all requirements for his degree which will be awarded on the next regular date for award of degrees.

A student in line for graduation at the end of this semester who fails to graduate because of an F on one course taken this semester may stand special examination under certain conditions on the course after the regular degree date. A senior who qualifies for graduation under this provision will be awarded his degree on the next regular date for the award of degrees. For further information see paragraph Examination on F Received in Last Semester." (Quoted from pp. 120-121 Clemson University Announcements, 1970-1971.)

The motion passed unanimously. Concern was expressed from the Senate floor that the "Forgivable F" as now in force is not clear to either students or faculty, and it was hoped that perhaps a general announcement might be sent to the faculty that explained such things as what disposition would be made of an I or a WF on a freshman's record; President Prochaska stated that he would discuss the matter with Mr. Vickery in the near future.

The meeting was adjourned at 6:28. Absent: M.W. Jutras; J. H. Bond; J. P. Crouch; J. K. Johnson; W. E. Castro; Jo Ann McNatt; W. E. Gettys, Rose Godbout.

CENTRAL GIFT RECORDING PROCEDURE

A policy regarding a central procedure for recording all gifts made to Clemson University has been adopted at a recent meeting of the Executive Officers of the University. The policy is as follows:

"Copies of all gifts in the form of checks, bequests and/or real property for scholarships, restricted gifts, and unrestricted gifts that are received by any office at Clemson University, should be forwarded to the Office of Development.

The receiving office should forward checks and/or documents and any information as required through the normal accounting procedures.

If the person or office initially receiving this gift desires to acknowledge its receipt and would like to thank the donor, this is certainly encouraged. Copies of the donor's letter and check and/or documents, plus any acknowledgment letter by the receiving office, should be forwarded to the Development Office. The Development Office will prepare a file. Necessary information will be recorded concerning the particular gift, to include name of donor, purpose of gift, check number, date on check, amount of check, and which office and person has acknowledged receipt. If the initial office does not acknowledge receipt of this check, the Development Office will prepare a letter to acknowledge receipt.

Research grants and/or contracts for specific services to be done, IPTAY gifts, Clemson Alumni Loyalty Fund gifts, YMCA gifts, gifts to off-campus centers (Greenville and Sumter), and gifts to the Serrine, Architectural, Clemson University, and Engineering Foundations are not to be sent to the Development Office.

Gifts to the YMCA, off-campus centers (Greenville and Sumter), and the Serrine, Architectural, Clemson University, and Engineering Foundations are to be itemized, giving name of donor, purpose of gift, date of check, and the amount of check, for the twelve-month period ending June 30 of each year. This list should be forwarded to the Development Office during the month of July of each year.

Gifts to Clemson Alumni Loyalty Fund and IPTAY should list total dollars only, for the twelve-month period ending June 30 of each year. These twelve-month reports should be sent to the Development Office during the month of July each year.

Reports from the Clemson Alumni Loyalty Fund, Clemson University Foundation, and the Serrine, Architectural and Engineering Foundations should list total dollars received and total dollars transferred as gifts to Clemson University during the twelve-month period."

INSTITUTIONAL SELF-STUDY

The Steering Committee for Institutional Self-Study set the following deadlines for the various reports:

Departmental reports	October 31, 1970
College or School reports	January 31, 1971
University-wide reports	April 15, 1971

Copies of all reports will be maintained in Room 213, Plant and Animal Science Building and are available for reading by Clemson University faculty, staff and students.

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

R. H. Garrison (Hd, Dept of Seed Cert) and U. S. Jones (Hd, Dept of Agronomy and Soils), served as members of the Advisory Council to the Federal Land Bank and the Federal Intermediate Credit Bank of Columbia on Nov. 23-24. The Committee is composed of some 18 or 20 members from North Carolina, South Carolina, Georgia and Florida.

COLLEGE OF ARCHITECTURE

M. G. Melaragno (Assoc Prof) has had an article "Tornado Forces and Their Effects on Building," published in Build International, Volume 3, No. 11, November, 1970.

Sam Wang (Assoc Prof) was elected to Board of Directors of the Southeastern Society for Photographic Education at a recent meeting in Athens, Ga. His painting is also included in the Springs Travelling Art Exhibit which will be touring five states.

AGRICULTURAL EDUCATION

Earl T. Carpenter (Hd and Assoc Prof) participated in the annual convention of the American Vocational Association at New Orleans, La., Dec. 4-8. Dr. Carpenter was elected President-elect of the American Association of Teacher Educators in Agriculture for 1971.

CERAMIC ENGINEERING

A Brick Manufacturers Short Course will be held at Olin Hall the week of Jan. 4-9, 1971. Dr. G. C. Robinson (Hd) will be the director and instructor. Also on the teaching staff will be Mr. A. J. Blume, a distinguished lecturer from American Olean Co., Cloverport, Ky. and faculty members from the Ceramic Engineering Dept. Additional information may be obtained from Prof. R. A. Banister, Coordinator, Office of Industrial and Municipal Relations, 112 Riggs Hall.

COLLEGE OF ENGINEERING

L.G. Rich (Dean) was a member of the Engineers' Education and Accreditation Committee of the Engineers' Council for Professional Development, Inc. which visited Washington University in St. Louis, Mo. on Dec. 6-8 to review accreditation of the College of Engineering of that institution.

Cecil O. Huey, Jr. (Prof) attended the midyear meeting of the Engineering Design Graphics Division of the American Society for Engineering Education held on Nov. 11-13 at Amherst, Mass. The conference, hosted this year by the University of Massachusetts, was focused upon the development in computer displays, theoretical graphics and student design projects. Prof. Huey contributed several valuable ideas to the conference during the discussion periods and the informal sessions that followed each presentation.

ELEMENTARY AND SECONDARY EDUCATION

Morris A. King (Hd) was elected as a member of the Commission on Secondary Schools, Southern Association of Colleges and Schools at the annual meeting in Atlanta. The term of office is for three years.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart, III (Assoc Prof) presented a paper entitled "A Systems Approach to Pollution Control Planning" at the Pollution and the Environment Seminar sponsored by the School of Civil Engineering, The Georgia Institute of Technology on Dec. 9.

ENGLISH

Richard J. Calhoun (Alumni Prof) "The Ante-bellum Literary Twilight: Russell's Magazine," Southern Literary Journal, Fall of 1970.

Harriet R. Holman (Assoc Prof) "Attempt and Failure: Thomas Nelson Page as Playwright," Southern Literary Journal, Fall of 1970.

INDUSTRIAL MANAGEMENT

The Department of Industrial Management announces the following dates and speakers for its 1970-71 Graduate Seminar Series:

January 14 -- Robert W. Rosen, Professor of Business Administration, University of South Carolina.

March 25 -- Elbert T. Eggers, Professor of Management, Georgia State University.

April 1 -- Joseph J. Spengler, Professor of Economics, Duke University.

INDUSTRIAL MANAGEMENT ContinuedDates to be Announced

J.S. Hunter, Professor of Statistics, Princeton University.

A.E. Blanpain, M.D., Head, Dept. of Hospital Administration and Health Care, University of Leuven, Leuven, Belgium.

CALENDAR OF CAMPUS EVENTS

Jan.	1	Fri.	New Year's Day.
Jan.	2	Sat.	Basketball - South Carolina at Columbia (freshmen and varsity).
Jan.	4	Mon.	New student orientation.
Jan.	4-	Mon.-	Brick Manufacturers Short Course sponsored by the Ceramic Engineering Department, Clemson University.
Jan.	9	Fri.	
Jan.	5	Tues.	Registration all students.
Jan.	6	Wed.	Basketball - Georgia Tech at Atlanta (freshmen and varsity).
Jan.	9	Sat.	Basketball - Virginia at Virginia.
Jan.	9	Sat.	Basketball - Freshmen at Davidson.
Jan.	11	Mon.	Basketball - Maryland at Maryland.
Jan.	12-	Tues.-	Sponsored by the Clemson Architectural Foundation - Six South Carolina Painters: Invited by Rudolph Lee Gallery.
Feb.	7	Sun.	
Jan.	14	Thurs.	Basketball - North Carolina at North Carolina.
Jan.	16	Sat.	Basketball - Duke at CLEMSON.
Jan.	16	Sat.	Basketball - Freshmen vs. campus all-stars.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 11

CLEMSON UNIVERSITY LIBRARY
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JAN 13 RECD

January 15, 1971

HEW COMMUNICATION

Early in December, 1970, President Edwards received a letter from Henry C. Steed, Jr., Director, Office of Grant Activities, Department of Health, Education, and Welfare. The purpose of the letter was to alert our President to Clemson's responsibilities concerning the "Student Unrest" provisions of the Department's Appropriation Act of 1970 and the proposed act for 1971 as well as the Office of Education Appropriation Act for 1971. Accompanying the letter was the following:

NOTICE TO ALL INSTITUTIONS OF HIGHER EDUCATION THAT ARE RECIPIENTS OF GRANTS, LOANS, AND CONTRACTS AWARDED BY OPERATING AGENCIES OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Section 407 of the Department's Appropriation Act of 1970 (P.L. 91-204) provides:

"No part of the funds appropriated under this Act shall be used to provide a loan, guarantee of a loan, a grant, the salary of or any remuneration whatever to any individual applying for admission, attending, employed by, teaching at, or doing research at an institution of higher education who has engaged in conduct on or after August 1, 1969, which involves the use of (or the assistance to others in the use of) force or the threat of force or the seizure of property under the control of an institution of higher education, to require or prevent the availability of certain curriculum, or to prevent the faculty, administrative officials, or students in such institution from engaging in their duties or pursuing their studies at such institutions."

President Edwards, in his reply, assured Mr. Steed that, "We will make certain that Clemson University is in compliance."

The support of the faculty and staff in this matter is earnestly solicited. If force or the threat of force were to prevail on our campus it would indeed herald the eventual demise of that tenet for which we have labored long and hard---"academic freedom."

Victor Hurst
Vice-President for Academic Affairs
and Dean of the University

SEATING CAPACITY OF UNIVERSITY AUDITORIUMS

In scheduling meetings there is often a need to know the capacity of various auditoriums and the persons who are to be contacted for the use of these facilities.

The accompanying table should be of help.

<u>Name</u>	<u>Capacity</u>	<u>Contact</u>
Sirrine Auditorium	200	Dean Trevillian
Plant and Animal Science Auditorium	280	Dean Wiley
Food Industries Auditorium	200	Dean Wiley
Earle Hall	150	Dean Rich
Lowry Hall	220	Dean Rich
Olin Hall	100	Dean Rich
Daniel Auditorium	329	Dean H. M. Cox
Physics Auditorium - Room #1	141	Dean Aucoin
101 Kinard	141	Dean Aucoin
201 Kinard	132	Dean Aucoin
301 Kinard	132	Dean Aucoin
Brackett Auditorium	476	Dean Aucoin
Tillman Hall	750	President's Office
200 Hardin Hall	196	Dean H. M. Cox

GRADUATE COUNCIL MEETING, DECEMBER 16, 1970

The Graduate Council met in Room 21, Tillman Hall, on December 16 at 10:00 a.m.

Present for the meeting were: Dean Schwartz, Dr. Riggs, Dr. Tombes, Dr. Graben, Dr. Allen, Dr. Jensen, Mr. Vick and Dr. Bolen.

The first item for consideration was the list of candidates for December 1970 graduation. Dr. Graben made the motion, seconded by Dr. Allen, that the students who had fulfilled the requirements for graduation, according to their various programs, be awarded their degrees. The motion carried unanimously.

GRADUATE COUNCIL MEETING, DECEMBER 16, 1970 (continued)

The next item for consideration was Mr. Jerry Blanche's appeal for the use of a typewriter employing pica 6l (Smith-Corona) for theses and dissertations. Much discussion of the possibility of misinterpretation of specifications outlined in "Special Procedures for Writing a Thesis/Dissertation" followed. Various points of view were expressed with the conclusions:

1. There is a need for new wording in the handbook for typing future theses and dissertations.
2. The types that would be acceptable should be specifically described.

The motion was made by Dr. Riggs and seconded by Dr. Tombes that Mr. Blanche's appeal be rejected, and that the Graduate School rephrase the statement in the handbook in the interest of clarity and establish the patterns of type to be used in typing theses in the future. The motion passed by a vote of 7 to 1.

The next scheduled meeting will be held January 15, 1971, at 3:45 p.m. in Room 21, Tillman Hall.

COLLEGE OF FOREST AND RECREATION RESOURCES

Wm. H. Davis McGregor (Dean) was one of ten delegates selected to represent South Carolina at the Mid-Atlantic and Southeastern States Public Land Law Forum at Syracuse, N.Y. on Dec. 14-15. The forum reviewed the recommendations of the Public Land Law Review Commission, recently published in a report entitled "One-Third of the Nation's Land."

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Wm. C. Laffoday, (Dir, Professional Development) addressed the initial meeting of the newly formed Clemson Kiwanis Club at the Clemson House on Dec. 3. The topic of his address was "Times are Changing -- For Sure."

CHEMISTRY

The following papers were presented by members of the Department at the Southeast-Southwest Regional Meeting of the American Chemical Society, New Orleans, La., Dec. 2-4:

J. R. Bacon (Asst Prof) and J. M. Clemons (Grad Stu), "The Coulometric Generation of Copper (II), Lead (II), Cadmium (II) and Zinc (II) for Use in Polarography."

R. B. Ferguson (Grad Stu) and J. R. Bacon (Asst Prof), "The Determination of Beryllium with 2-Methyl-8-Quinolinol."

A. R. Pinder (Prof) and A. K. Torrence (Grad Stu), "Total Synthesis of Racemic Fukinone."

CHEMISTRY (continued)

A. K. Bonnette (Grad Stu) and J. F. Allen (Assoc Prof), "A Mossbauer Study of the Prussian Blue System: Selective Isotope Labeling with Fe-56."

J. F. Geldard (Asst Prof) and V. A. Fishman (Grad Stu), "Spectroscopic Determination of the Absolute Configuration of Octahedral Cobalt Complexes."

P. A. Spanninger (former Grad Stu) and J. L. von Rosenberg (Assoc Prof), "The Aluminum Halide-Catalyzed Rearrangement of Alkyl Phenyl Ethers."

A. R. Pinder (Prof) and S. J. Price (Grad Stu), "Synthetic Studies of the Acorane Group of Bicyclic Sesquiterpenes."

D. S. Stanford (Grad Stu) and A. L. Beyerlein (Asst Prof), "Thermodynamic Properties of Carbon Tetrachloride - Ethyl Alcohol Mixtures by Light Scattering."

Seminars have been presented at nearby colleges by several members of the Chemistry faculty:

J. C. Fanning (Assoc Prof), University of Alabama, Huntsville, Ala.; J. F. Allen (Assoc Prof), Allen University and Benedict College, Columbia, and Mercer University, Macon, Ga; and G. L. Powell (Asst Prof), The Citadel and The Baptist College of Charleston, Charleston, S. C.

ELECTRICAL AND COMPUTER ENGINEERING

Carl Malstrom (Instr) participated in several technical activities associated with the Fall Joint Computer Conference in Houston, Texas, Nov. 16-21. He attended as a member of the governing board of the technical society of Simulation Council, Inc., which held the Executive Committee, Board of Directors, and Fall National Technical Meeting during this week. Mr. Malstrom is past Vice President of the organization and was elected for a third term on the Executive Committee and is a National Director representing the Southeastern Regional Council.

Dr. Granino A. Korn was a guest of the department and presented a seminar on Nov. 30 on "The Future of Continuous-System Simulation." Dr. Korn is a distinguished professor at the University of Arizona.

ENGLISH

C. O. Caskey (Assoc Prof) conducted a short seminar, Communications in Industry, at Piedmont Tech in Greenwood on Dec. 1 and 8.

CHEMICAL ENGINEERING

F. C. Alley (Prof) addressed the student body of McDuffie-Parker High School in Anderson and spoke on "Engineering and Environmental Control." Dr. Alley was co-chairman of a two day seminar on "Air and Water Pollution Control" held Nov. 19-20 and sponsored by Clemson University and the S. C. Pollution Control Authority.

F. C. Alley, Counselor, received congratulations to Clemson's AIChE Student Chapter for receiving the Outstanding Student Chapter Performance Award for 1970. Henry DuPre is President of AIChE Student Chapter.

The Chemical Engineering Department has received an unrestricted gift of \$1500 from the Humble Companies Foundation.

D. F. Bruley has been on Sabbatical and Visiting Research Professor in the Chemical Engineering Dept. at Princeton University, Princeton, N. J. for the fall semester. He worked on a research project involving Monte Carlo solutions of partial differential equations and helped with the development and lectures in a Master's level process control course. One week was spent at the Imperial College in London and one week at Johannes Gutenberg Universtat in West Germany. The following papers and lectures were presented while on leave: Sept. 28 - University of Pennsylvania, Philadelphia, Pa., "Studies in Process Identification." Oct. 23 - Imperial College, London, England, "Distributed Parameter Process Identification." Oct. 27 - Johannes Gutenberg Universtat, Mainz, West Germany, "Hybrid Computer and Monte Carlo Techniques Applied to Physiological Systems Analysis." Nov. 11 - Princeton University, Princeton, N. J., "Studies in Distributed Parameter Process Analysis with Biomedical Applications." AIChE Meeting, Dec. - "Autoregulatory Phenomena Related to Cerebral Tissue Oxygenation" with H. I. Bicher, D. D. Reneau and M. H. Knisely, and "Dynamic Response of a Distributed Parameter Simultaneous Heat and Mass Transfer System by Correlation Analysis" with J. B. Ledbetter. Also at the AIChE Meeting, "Factors Regulating O₂ Supply to Brain Tissue - Summary of three years of research Collaboration Between Chemical Engineers and Physiologists" with H. I. Bicher, D. D. Reneau and M. H. Knisely. Dec. 16 - University of Connecticut, Storrs, Conn., "Distributed Parameter Process Analysis with Biomedical Applications."

D. F. Bruley had the following articles published: "Hybrid Simulation - Oxygen Transport in the Microcirculation," Chemical Engineering Progress Symposium Series; "Mass Transfer in Biological Systems," Vol. 66, pp. 22-32, 1970, with M. H. Knisely; "A Dynamic Mathematical Model of the Chemostat," Biotechnology and Bioengineering, Vol. XII, pp. 747-769, 1970 with T. B. Young and H. R. Bungay.

FOOD SCIENCE

W. P. Williams, Jr. (Hd and Prof) attended the AID workshop on cereal breeding and fortification in Annapolis, Md., Dec. 6-10.

D. M. Henricks (Assoc Prof) and D. J. Tindall (Grad Res Asst) were co-authors of a paper presented at the Southern Conference on Comparative Endocrinology at Duke Marine Station, Beaufort, N. C., Dec. 4-5. Mr. Tindall presented the paper entitled "Progesterone-4-¹⁴C Metabolism by Porcine Uterine Endometrial Tissue." Dr. Henricks presided over one of the sessions.

GEOLOGY

V. S. Griffin (Assoc Prof) presented a paper, "The Meaning of Stockwork Tectonics," at the 1970 Annual Meeting of the Alabama Geological Society, Dec. 4 in Alexander City, Ala.

R. D. Hatcher, Jr., (Assoc Prof) presented a paper, "A Working Model for the Developmental History of the Southern Appalachians," at the 1970 Annual National Meeting of the Geological Society of America, Nov. 11-13, Milwaukee, Wis.

D. S. Snipes (Asst Prof) was elected chairman of the Membership Committee of the Carolina Geological Society at the Society's meeting in Danville, Va., Oct. 24-25.

INDUSTRIAL EDUCATION

Harvey E. Morgan, Jr. (Assoc Prof) attended the National Advisory Council Meeting of Iota Lambda Sigma in conjunction with the American Vocational Association and was re-elected to another term as Historian for the National Advisory Council. The meeting was held in New Orleans, La., Dec. 5-8.

INDUSTRIAL MANAGEMENT

In the absence of Miss Sue Brown (on study leave), Richard Ruhle -- A.B. 1960, Washington and Lee University; J.D. 1963, Washington and Lee University -- a part time visiting lecturer in Industrial Management and an Anderson attorney, has been appointed as pre-law adviser for those students interested in attending law school.

INTERDISCIPLINARY STUDIES

S. F. Hulbert (Assoc Dean), J. J. Klawitter (Asst Prof) and R. B. Leonard (Post Doc) presented a paper entitled, "Compatibility of Bioceramics with the Physiological Environment" at the National Conference on Ceramics in Severe Environments at Raleigh, N. C., Dec. 9.

S. F. Hulbert presented a Seminar on "Materials of Construction for Orthopedic Appliances" at the Duke University Bioengineering Seminar Series on Dec. 8.

LANGUAGES

Edwin P. Arnold (Instr) and Patricia W. Wannamaker (Asst Prof) participated in a workshop sponsored by the South Carolina Conference of Foreign Language Teachers held at Wofford College on Dec. 12. Professor Arnold's paper was entitled "Teaching Culture in the Foreign Language Classroom," and Dr. Wannamaker spoke on "Learning the Four Skills -- Listening, Speaking, Reading, Writing."

MATHEMATICS

R. E. Haymond (Assoc Prof) presented a talk to the Furman University Mathematics Club entitled "Digital Models" on Dec. 7.

K. Alam (Assoc Prof) and K. T. Wallenius (Assoc Prof) participated in a symposium on "Statistical Decision Theory" held at Purdue University Nov. 23-25.

Dr. Wallenius was elected President of the S. C. Chapter of the American Statistical Association at a recent chapter meeting held in Columbia.

RECREATION AND PARK ADMINISTRATION

Gordon E. Howard (Asst Prof) presented an invited paper entitled "Co-ordinating the Recreation Effort" at the 43rd Annual Convention of the South Carolina Association for Health, Physical Education and Recreation on Nov. 21.

SOCIAL SCIENCES

Bernard Caffrey (Assoc Prof) presented a seminar with Robert MacLennon, M.D. at the University of North Carolina School of Public Health, on Dec. 16. The seminar was entitled: "The Buabal Community Medicine Study: Social and Behavioral Factors Related to Illness and the use of Health Services in Cali, Colombia (South America)." The study was carried out under the sponsorship of the International Center for Medical Research and Training of Tulane University.

TEXTILES

John J. Porter (Assoc Prof) presented a paper at the American Institute of Chemical Engineers meeting in Chicago, Ill., Dec. 2 entitled "Textile Waste Treatment Today and Tomorrow." The paper is co-authored by A. Ray Abernathy (Assoc Prof), Environmental Systems Engineering and William F. Nolan (Grad Stu).

Donald W. Lyons (Assoc Prof) served as vice chairman of the Automatic Control Theory technical session at the 1970 Winter Annual Meeting of the American Society of Mechanical Engineers, New York City, Nov. 29 to Dec. 4. Dr. Lyons also lectured in the short course on Industrial Noise Control in Atlanta on Dec. 4. The course was jointly sponsored by the Instrument Society of America and the Acoustical Society of America.

Hassan M. El-Behery (Visiting Lect) presented a seminar entitled "Influence of Fiber Properties, Blend Level and Twist on the Properties of Polyester/Cotton Blended Yarns" at N. C. State School of Textiles on Dec. 2.

During the week of Dec. 7-11, two scientific seminars were held which attracted large audiences. During this "off-season" for such programs it was noteworthy that the participating "professional students," over half of whom held their Ph.D. degrees, came from 21 different states, plus Switzerland and Mexico. These courses in "The Application of Computers to Color Science" and "Flame Retardance of Fibers" are part of Clemson's annual series of Professional Development programs.

TEXTILES (continued)

The Color Science Course, chaired by Sirrine Professor F. T. Simon, also featured a public exhibition of many of the very latest computers designed for high level color measurement. The Flame Retardance course, chaired by R. H. Barker (Assoc Prof) was a successful joint effort with the Plastics Institute of America.

VOCATIONAL EDUCATION MEDIA CENTER

A. K. Jensen (Assoc Prof and Dir) attended the American Vocational Association (AVA) Convention in New Orleans, La., Dec. 4-9, where he presided over the general and business sessions of the Vocational Instruction Materials (VIM) section of AVA. Dr. Jensen is president of VIM.

R. T. Benson (Asst Prof) also attended the Convention and prepared and presented a slide and audio tape presentation on the Development and Evaluation of a Programmed Instruction Manual developed here at the Media Center.

SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS FULLY ACCEPTS SECOND FOLLOW-UP REPORT FOR CLEMSON UNIVERSITY AT SUMTER

On December 15, 1970, Mr. John G. Barker, Associate Executive Secretary, Commission on Colleges, reports the Committee on Standards and Reports for Senior Colleges of the Southern Association of Colleges and Schools has reviewed and accepted the second follow-up report of the Sumter Center of Clemson University and no further reports are requested.

RECORD 1,289 DEGREES AWARDED IN 1970

The University awarded 340 diplomas, including 64 master's degrees and 17 doctorates, at mid-year commencement. Including ceremonies in May and August, the University awarded 1,289 degrees during 1970, the largest number granted in one year in the institution's history. Sixty-two ROTC cadets received second lieutenant commissions and 25 students were cited for outstanding academic achievement at the December graduation.

UNIVERSITY COMMUNICATIONS CENTER SERVICES

The following services are available to all University personnel through the facilities and personnel of the Communications Center:

1. Photographic Services
 - (a) Slides (color and black and white)
 - (b) Still photos (color and black and white)
 - (c) Motion Pictures (color, silent or sound)
2. Television Services
 - (a) Black and white broadcast video tapes
 - (b) Black and white closed circuit video tapes

UNIVERSITY COMMUNICATIONS CENTER SERVICES Continued

3. Radio Services

(a) Broadcast audio tapes

(b) Audio tape dubs (reel to reel, or reel to cassette)

4. Visual Aid Services

(a) Overhead Transparencies

(b) Original art work and/or lettering

Costs for such services cover only the amount necessary to recover the cost of materials and outside services. No labor is involved in the charges. Typical costs are: 43¢ each for color slides; 50¢ each for overhead transparencies; \$15 for 100 feet of color, silent 16mm movie film, etc.

CALENDAR OF CAMPUS EVENTS

Jan.	16	Sat.	Basketball - Duke at Clemson.
Jan.	16	Sat.	Basketball - freshmen vs. campus all stars.
Jan.	18	Mon.	Basketball - N.C. State at Clemson (varsity & freshman teams).
Jan.	20	Wed.	Basketball - Georgia Tech at Clemson (varsity & freshman teams).
Jan.	21	Thurs.	The Dorian Woodwind Quintet & Morton Subotnick's "Misfortunes of Immortals" - Littlejohn Coliseum.
Jan.	23	Sat.	Basketball - Virginia Polytechnic Institute at V.P.I.
Jan.	23	Sat.	Basketball - Freshmen at Georgia.
Jan.	23	Sat.	CDA - Chicago (Coliseum)
Jan.	25	Mon.	Basketball - Freshmen at Anderson.
Jan.	26	Tues. 8:00 p.m.	The National Players will present Shakespeare's <u>Much Ado About Nothing</u> - Tillman Hall.
Jan.	26-	Tues.-	Pesticide Chemical School - Clemson House.
Jan.	27	Wed.	
Jan.	28	Thurs.	Basketball - Virginia at Clemson.
Jan.	28	Thurs.	Basketball - Freshmen vs. UNC of Charlotte.
Jan.	30	Sat.	Basketball - Indiana State at Clemson.
Jan.	30	Sat.	Basketball - Freshmen vs. Gaston Jr. College.
Feb.	1	Mon.	Basketball - Furman at Furman (freshman and varsity teams).

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 12

February 1, 1971

HESTER APPOINTED TO HEAD OF MECHANICAL ENGINEERING DEPARTMENT

Dr. J. Charles Hester has been named head of the Department of Mechanical Engineering effective Feb. 1. A native of Mt. Vernon, Tex., Dr. Hester assumes direct responsibility for the department's teaching, research and public service activities at both undergraduate and graduate levels.

Before coming to Clemson as an associate professor in January 1970, Dr. Hester taught mechanical engineering at the University of Texas at Austin, and spent several years in industry as a thermodynamics research specialist.

1971 CLEMSON WEEK AROUND THE WORLD

The 1971 Clemson Week Around The World will be held April 12-16.

The annual event provides an opportunity for Clemson clubs and organizations throughout the nation to meet and enjoy Clemson fellowship, and to hear reports concerning progress and development at the University during the past year.

Listed below are the primary cities and areas having active Clemson clubs and organizations. Any faculty or staff member who plans to be in one of these cities or areas on or near the meeting dates and who is interested in meeting with one of these organizations is asked to contact George Bennett in the Trustee House at 2061 or 2062.

Albany Ga.	Columbus, Ga.	Memphis, Tenn.	Raleigh, N.C.
Asheville, N.C.	Daytona Beach, Fla.	Miami Beach, Fla.	Richmond, Va.
Atlanta, Ga.	Gastonia, N.C.	Mobile, Ala.	Savannah, Ga.
Baltimore, Md.	Greensboro, N.C.	Montgomery, Ala.	Southern Cal. Area
Birmingham, Ala.	Hampton, Va. Area	New Orleans, La.	Statesville, N.C.
Boston, Mass.	Houston, Tex.	New York, N.Y.	Tampa Fla. Area
Charlotte, N.C.	Huntsville, Ala.	Northwest Fla. Area	Tifton, Ga.
Charlottesville, Va.	Indianapolis, Ind.	Orlando, Fla.	Tri-City Area, Tenn.
Chattanooga, Tenn.	Jacksonville, Fla.	Philadelphia, Pa.	Washington, D.C.
Chicago, Ill.	Macon, Ga.	Pittsburgh, Pa.	Wilmington, Del.

PRESIDENT EDWARDS ATTENDS SREB MEETINGS

President Robert C. Edwards, Vice Chairman of the Southern Regional Education Board, attended meetings of the Educational Plans and Policies Advisory Committee and Executive Committee of SREB in Atlanta Jan. 28-29.

MINUTES OF THE MEETING OF THE FACULTY SENATE, DECEMBER 8, 1970

The meeting was called to order at 4:15 and minutes of the previous meeting approved as circulated, with the addition of two substituted paragraphs which corrected typographical errors and omissions.

President Prochaska reported that he had attended the following meetings: the Educational Council, where budgetary information and the report from the visiting HEW team were reviewed; the Tri-Level Committee, where the main item of business concerned approval of the Administration's position on the 800 ruling for athletic participation; the Vending Machine Committee, where allocation of vending machine funds occupied the committee's time; the Curriculum Committee; and the meeting of the Advisory Committee of the Faculty Senate, whose main order of business was to form Ad Hoc Committee C to study graduation. Appointments to Committee C were announced: Professors B. J. Skelton, K. Lehotsky, and W. C. Whitten of the Senate with Professors H. N. Cooledge and J. V. Reel will be asked to serve on the committee, Professor Skelton to act as chairman.

Reporting on the disposition of the Senate's resolutions from the November meeting, President Prochaska announced that the resolutions concerning deletion from the catalogue of re-examinations for seniors needing up to six points on their G.P.R. for graduation or taking an F in the last semester before graduation had been submitted to Dean Hurst, who requested of the Senate a suggested timetable for implementation of the resolutions. The matter of the "Forgivable F" is still under consideration; President Prochaska has seen Dean Vickery requesting clarification for the faculty. Discussion from the Senate on the "Forgivable F" followed; Professor Idol reported that freshmen are forcing teachers to give them an F, rather than a D, by refusing to take their finals. A procedure for implementing the original Faculty Senate proposal (October, 1969) is under study, with the cooperation of Dean Vickery's office.

President Prochaska reported that the Research Committee's survey results would probably appear in the Clemson Newsletter for December 15. He further added that the Senate's November resolution defining the graduate faculty and the Graduate Council had been presented to the Administration; although initial comments were positive in nature, no formal statement concerning final disposition of the resolution was available yet.

President Prochaska reported that he had met with Mr. Stan Nicholas twice since the Senate's November meeting to clarify the Senate's position on the University Union project and to facilitate communication between the Senate and the Administration on the issues involved. He pointed out that Mr. Nicholas' failure to give estimated costs on the Stadium Road project during his visit to the Senate in November resulted from Mr. Nicholas' not having that information at that time. Discussion of the University Union project is continuing with the Administration. It was moved and seconded that the Senate's Research Committee investigate the problem of the use of the bottom lands as playing fields, since certain research people seemed concerned about the loss of those research areas. The motion passed 27 to 0 with 5 abstentions.

MINUTES OF THE MEETING OF THE FACULTY SENATE, DECEMBER 8, 1970 (Continued)

For the Welfare Committee, Professor J. C. Mullins reported that the committee had decided to take no action at the present time on a request by Professor Lehotsky to investigate and possibly answer a comment by Dr. Morris, Commissioner of Higher Education, in the Greenville News which suggested that salaries at Clemson were the equal of those throughout the Southeast. Professor Mullins stated that while a comparison of Clemson salaries with those of 16 Southeastern universities showed Clemson salaries \$400 lower, on the average, than those of the other 16 (information taken from the Summer, 1970 AAUP Bulletin), it seemed unwise to press the matter in a time of budgetary difficulties, such as the State is in now.

Professor Mullins also brought the Committee's recommendation that no action be taken on a request by Professor Borgman to ask for changes in state retirement benefits, since again such changes might cost the State money which is currently in short supply. It was suggested that the South Carolina State Employee's Association might more profitably deal with the matter. Finally, Professor Mullins reported that his committee's report on the Student Senate's dress code bill was under examination and he would be able to bring those deliberations before the Faculty Senate at its January meeting.

For the Admissions and Scholarship Committee, Professor John Idol reported that his committee recommended holding, until the matter of the "Forgivable F" should be straightened out to the Senate's satisfaction, any action on the Student Senate's bill suggesting that F be changed to WF in all cases, and WF not to be averaged into the GPR. Clarification of the present system of "Forgivable F" may furnish a basis for consideration of this suggested extension of the regulation.

For the Policy Committee, Professor H. D. Adams reported that any discussion of requesting a place for faculty on University planning committees which establish priorities should rest on Ad Hoc Committee B's final report analyzing University committees, so no action had been taken.

For Ad Hoc Committee A, Professor Jutras reported that the final draft of a revised manual for faculty was complete, except for final editing. When that job is done, copies will be circulated to the Senate and a special meeting called to adopt, alter, or reject the new manual.

For Ad Hoc Committee B Professor Borgman stated that a report will be presented at the Senate's January meeting.

For the Admissions and Scholarship Committee, Professor Idol moved, seconded by Professor Vernon Hodges, the adoption of a motion encouraging faculty and departments to schedule examinations other than at night. An amendment introduced by Professor W. C. Whitten, seconded by Professor H. D. Adams, to strengthen the original motion to read as a positive ban against all such specially scheduled exams was defeated by a vote of 22 to 6 with 4 abstentions, since the amendment was so worded as to limit even special examinations, finals, and emergency cases to daytime, regular class hours. A substitute motion

MINUTES OF THE MEETING OF THE FACULTY SENATE, DECEMBER 8, 1970 (Continued)

introduced by Professor Mullins to alter the original motion's emphasis on night exams to suggest adherence to regular class times was accepted by Professors Idol and Hodges. The motion as finally presented read:

Be it resolved that the Faculty Senate, which has no intent of limiting the prerogatives of any faculty member or department, encourages all faculty members and/or departments not to schedule examinations or quizzes at other than normally scheduled class times.

This motion passed by a vote of 29 to 0 with 3 abstentions.

A motion was then introduced by Professor E. B. Rogers, seconded by Professor K. Lehotsky, on behalf of Professors Hash, Gray, Skelton, Jutras, Richardson, Sims, Hays, and Castro which suggested adding the Senate's voice to the Administration's in censure of the Tiger's recent breach of good taste, a clear violation of the policy statement of August 12, 1970, as contained in a memorandum for record of the Executive Officers' meeting, which statement Professor Rogers also read for clarification. Discussion from the floor suggested a general agreement of the Senate with the action taken by President Edwards in invoking that policy to rebuke the Tiger's editorial staff. There was some feeling, however, that the matter had been well and completely taken care of by President Edwards' public statement and his actions; further action in the form of a resolution by the Senate, rather than simply expressing agreement with and/or approval of the President's quick response, would tend to revive an issue which was now passe, since the Senate's resolution would not be published until February, a full three months after the event in question.

An amendment to the original motion, presented by Professor Hodges, seconded by Professor Hash, which appeared to alter the wording of the policy statement was withdrawn. A move to table the resolution was defeated by a vote of 17 to 10 with 5 abstentions. The final motion, without the amendment, was defeated by a vote of 16 to 13 with 3 abstentions.

The meeting was adjourned at 6:11.

Absent: J. H. Bond; G. W. Gray; J. K. Johnson.

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, DECEMBER 1, 1970

Present: D. R. LaTorre (Chairman), J. A. Hash, Opal Hipps, M. L. Hockenberry, M. W. Jutras, R. E. Schoenike, J. M. Wannamaker, H. H. Wilson, J. W. Gordon Gourlay (Secretary).

1. The minutes of the meeting of November 3 were approved.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, DECEMBER 1, 1970 (Continued)

2. Dr. LaTorre reported

- (a) That the Faculty Library Survey had been completed, that tabulation had been done by the computer, and that the typing of the comments made by the faculty was almost completed. As of December 1, 252 Student Library Surveys had been returned. He indicated that the results of these surveys would be discussed at the January 1971 meeting of the Library Committee.
- (b) That he had replied to the letter of Dean C. B. Green of Nov. 2. He read his reply to this letter.
- (c) That the Report of the Ad Hoc Planning Committee for the Expansion of the Robert Muldrow Cooper Library, of which he was a member, had been completed. Three stages of expansion had been recommended with dates needed and estimated cost.

3. In reply to a question concerning the freezing of funds for the purchase of library books, Mr. Gourlay read from the memorandum of Nov. 23 to the Academic Deans from Dean Hurst on Reduced Spending for the 1970-71 Academic Year items 3 and 5. The Committee expressed concern about the freezing of funds for the purchase of library books and instructed its Chairman to express this concern to Dean Green.

4. Dr. LaTorre welcomed the Communications Resources Committee and Vice President Stanley G. Nicholas. Mr. Harry Durham, Chairman of the Communications Resources referred to the Draft of Recommendation from Communications Resources Committee and commented on the recommendation. After discussion, Dr. LaTorre said that he would appoint an Ad Hoc Committee to investigate the feasibility of acquiring, cataloging and storing audiovisual materials in the main library.

5. In reply to a query as to time delays for ordering and cataloging books, Mr. Gourlay made some general observations on reasons for time delays.

- (a) The first step after receiving requests is to conduct a "search" to see if the item is already in the library in order to avoid purchasing duplicate copies. Frequently a high percentage of the items requested are already in the library. This figure is sometimes as high as 50%.
- (b) Incorrect bibliographic information, incorrect spelling of authors' names, or titles and illegible writing slow up searching. Also, many requests are received on which publisher, place or price are not indicated.
- (c) The variety of entries under which a particular publication might be listed consumes a great deal of time in searching. Corporate entries - congresses, conferences, proceedings, transactions - have to be verified in a variety of bibliographic sources depending on the subject matter of the request or the language of the publication.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, DECEMBER 1, 1970 (Continued)

Searching bibliographic entries in the English language is frequently complicated, but when the search is made in French, German, Spanish, Russian, or Italian, the task proves more difficult, particularly if the author's name or title of the publication has been misspelled on the request form.

- (d) Publishers sometimes announce books well in advance of publication date. An example was cited in which Joslyn's METHODS OF FOOD ANALYSIS was requested by a faculty member in March 1964. The book was published in April 1970.
- (e) For many publications the library has to write to foreign countries or domestic sources to find out availability and price.
- (f) Many items requested have been out of print for years and have to be searched for by dealers. This is usually a very long process.
- (g) The library maintains 1,035 standing orders to receive publications in series as they become available. If the series is not included on a request form the series files have to be checked to find out if the publication is in a series or is a separate monograph.
- (h) Routine filing of requests, verifying invoices, corresponding with publishers for incorrect editions received, and a variety of other clerical duties are time consuming.

Some Solutions

- (a) Employment of additional searchers. If an employee has an aptitude for this type of work he can usually perform adequately after a year of close supervision, provided he has competence in foreign languages.
- (b) Application of automation, where feasible, to acquisition procedures.
- (c) Clemson library is geared to the printed cards of the Library of Congress. Work flow is dependent on receipt of cards; otherwise it would be necessary to employ a very large staff of linguistic and subject specialists in the cataloging department. Since January 1970, automated processing of requests for cards at the Library of Congress is bringing card distribution service up to acceptable standards. This improvement in service is being reflected in the speed of books being processed by the library.

Time of next meeting - Tuesday, January 5, 1971 at 4:00 P.M.

ALGERNON SYDNEY SULLIVAN AWARD

The Honors and Awards Committee invites all faculty and staff members to submit nominations for the non-student recipient of this year's Sullivan Award, which will be made on Honors and Awards Day, April 7, 1970. The award is described on page 90 of the 1970-1971 University catalog.

Nominations should be sent to Norman Olsen, Jr., 316 Strode Tower, by March 1.

Non-student recipients of the Sullivan Award for the past ten years have been:

1961	J. D. Lane
1962	B. E. Goodale
1963	R. M. Cooper
1964	F. J. Jervy
1965	C. A. Arrington
1966	Virginia Earle Shanklin
1967	John Robert Roy Cooper
1968	James Francis Byrnes
1969	Inez Watson
1970	George Hubert Aull

SEATING CAPACITY OF UNIVERSITY AUDITORIUMS

CORRECTION: In an article on seating capacities of University auditoriums which appeared on page 2 of the January 15 issue of the Newsletter, the correct contact for persons wishing to reserve Tillman Hall auditorium is the Student Affairs Office. The table is reprinted below.

<u>Name</u>	<u>Capacity</u>	<u>Contact</u>
Sirrine Auditorium	200	Dean Trevillian
Plant and Animal Science Auditorium	280	Dean Wiley
Food Industries Auditorium	200	Dean Wiley
Earle Hall	150	Dean Rich
Lowry Hall	220	Dean Rich
Olin Hall	100	Dean Rich
Daniel Auditorium	329	Dean H.M. Cox
Physics Auditorium - Room #1	141	Dean Aucoin
101 Kinard	141	Dean Aucoin
201 Kinard	132	Dean Aucoin
301 Kinard	132	Dean Aucoin
Brackett Auditorium	476	Dean Aucoin
Tillman Hall	750	Student Affairs Office
200 Hardin Hall	196	Dean H.M. Cox

AGRICULTURAL EDUCATION

L. H. Davis, Prof and Head of this department for the past eleven and one-half years, assumed his new position as Dean of Continuing Education at New Mexico State University, Las Cruces, Jan. 2. E. T. Carpenter (Assoc Prof) has replaced Dr. Davis as head of the department.

AGRICULTURAL ENGINEERING

C. E. Hood (Assoc Prof) presented a paper entitled "Certain Physical Characteristics of Okra Which Relate to Mechanical Harvesting," co-authored with W. L. Vick (Grad Trainee) at the winter meeting of the American Society of Agricultural Engineers held in Chicago, Ill. Dec. 8-11.

J. T. Ligon (Assoc Prof) also attended this meeting and presented a paper entitled "The Stanford Model Applied to Piedmont Watersheds," co-authored with A. G. Law (Assoc Prof of Engineering Mechanics) and D. H. Higgins (former Grad Asst).

ARCHITECTURE

J. E. Pinckney (Assoc Prof) was a panel member discussing the Architects roll in Ecology at the annual meeting of the Georgia Chapter of AIA in Savannah, Ga., Dec. 5.

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) presented a paper entitled "A Concept for the Statewide Emergency Medical Care System" at a meeting of the South Carolina Division of the Southern Section of the Institute of Traffic Engineers on Dec. 7 in Columbia.

J. P. Rostron (Assoc Prof) presented a paper, "The Status of Surveying Education" on Jan. 29 at the Biennial Mapping and Surveying Seminar in Atlanta. The seminar is sponsored by the Georgia Association of Registered Professional Land Surveyors and the School of Civil Engineering at Georgia Institute of Technology.

John M. Ford (Assoc Prof) was elected President of the S. C. Society of Engineers in Columbia on Jan. 8.

J. Edwin Clark showed a film that he helped make on "Helicopter Ambulance Operations" on Jan. 14 to the State Committee on Emergency Medical Services.

H. W. Busching (Assoc Prof and Hd) and J. Edwin Clark presented papers at technical sessions of the 50th Annual Meeting of the Highway Research Board in Washington on Jan. 18-20. Dr. Busching's paper was entitled "Fabric Reinforced Paving in the Urban Environment" and Dr. Clark's paper was entitled "Helicopter Response to Medical Emergencies."

CIVIL ENGINEERING (Continued)

Billy L. Edge (Asst Prof) presented a paper entitled "Analysis of Composite Structures Subject to Dynamic Loadings" at the ASME winter annual meeting in New York on Dec. 1.

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

"Talk-In" on Pesticides and the Environment. With the current emphasis on the quality and improvement of our environment, it is important that all individuals be informed of all available facts. This "Talk-In" is intended to provide an open discussion of this current and popular topic - the use of pesticides in relation to the environment. There will be two discussion sessions during the afternoon of Thurs., Feb. 25 at 1:15 to 2:45 and 3:15 to 4:45. Both sessions are open to all interested faculty, staff, and students. The second session will be a duplicate of the first and is planned to make it possible for a larger number of interested persons to attend. The "Talk-In" will be held on campus at a place to be announced in the next Newsletter.

ENGLISH

Jerry Blanche (Instr) presented a paper, "Diversity in Debate Experience," at the national meeting, Dec. 30 in New Orleans, of the Speech Communication Association.

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Assoc Prof) and W. W. Hines (Prof, Ga. Tech) published an article entitled "Control of water quality in a complex natural system," in the Oct. issue of the IEEE Transactions on Systems Science and Cybernetics. This was a special issue concerned with urban and public systems.

John H. Austin (Prof) published an article entitled "Training the Environmental Technician" in the Dec. issue of the American Journal of Public Health.

The American Society for Engineering Education has appointed J. H. Austin as a member of the George Westinghouse Environmental Awards Committee. This committee administers the above award, which is concerned with student engineering solutions to technological problems in the environment. Students prepare papers on topics such as: Pollutant control and abatement, Recycle or beneficial re-use of pollutants, Environmental distribution of pollutants (such as new, inventive instrumentation for detection and measurement), Impact of pollutants on natural ecosystems, Household and personal pollutants (like automobiles), Industrial pollutants (like utilities and industrial plants), Municipal pollutants (like sewage), Recreation pollutants (like outboard motors). Dr. Austin will serve on this committee through 1972.

MILITARY SCIENCE

Colonel George K. Maertens, (Prof of Military Science) has been notified by Third U. S. Army Headquarters, Fort McPherson, Ga., that he will be in charge of a team of Army Personnel established for the purpose of administering the annual general inspection to Presbyterian College, University of Georgia and Wofford College during Feb. and Mar. of this year. His team comprises members of the Clemson ROTC instructor group. At the same time, Colonel Maertens was notified that his detachment will receive its annual inspection on 13-14 April by a team headed by Clemson graduate, Colonel Charles Brown, Professor of Military Science at Furman University.

NURSING

Geraldine Labecki (Dean) has been appointed a member of the Pickens County Health Planning Council.

PLANT PEST REGULATORY SERVICE

H. B. Jackson has been named Supervisor of the Plant Pest Regulatory Service. Dr. Jackson has completed all the requirements for a Ph.D. degree in Entomology at Oklahoma State University.

RESEARCH COORDINATING UNIT

Robert H. White (Assoc Prof, on leave) recently presented two papers at each of two National Conferences. On Nov. 6, Dr. White made two presentations to the Joint National and State Advisory Council Conference in Washington, D.C., where representatives from 49 states and 4 territories were present. At the American Vocational Association Convention in New Orleans, Dec. 4-8, Dr. White presented papers on Dec. 5 and 6 on the topic of National and State Advisory Councils on Vocational and Technical Education. Dr. White is presently serving as executive director of the S. C. Advisory Council on Vocational Education.

John H. Rodgers (Dir) served as a member of the Advisory Council of the American Vocational Association at the Convention in New Orleans during Dec. Dr. Rodgers also represented the Southern Region on the AVA Curriculum Materials Committee.

Walter A. Cameron (Asst Prof) participated in the research program of the AVA Convention in New Orleans, Dec. 4-9.

SOCIAL SCIENCES

August Viglione (Asst Prof) has published "Science, Religion and Society for Paolo Frisi," in Scientia (Sept. - Oct., 1970).

SOCIAL SCIENCES (Continued)

R. S. Lambert (Prof on Sabbatical Leave) has been requested to compile an inventory of source materials on Loyalists in the Carolinas for the program on Loyalist Studies and Publications, a cooperative program of the City University of New York, the American Antiquarian Society, the University of London and the University of New Brunswick. His study of the South Carolina Loyalists in the American Revolution is going forward under a \$7,855 grant to Clemson University from the National Endowment for the Humanities.

GIFTS AND GRANTS RECEIVED BY THE S. C. AGRICULTURAL EXPERIMENT STATION

Harold A. Loyacano (Asst Prof) has been awarded a \$1,740 research grant from the Faculty Research Committee for the project entitled "Interaction between Catfish and Cleocharis dulcis, Chinese Water Chestnut, Grown on Floating Rafts."

From the States Ports Authority, \$20,480 to Agricultural Economics and Rural Sociology for a study of the Charleston grain elevator.

From SKODCO, \$1,500 to Horticulture for seaweed research.

From Medical University of South Carolina, \$750 to Truck Station for tobacco research.

MATHEMATICS

John Kenelly (Prof and Hd) spent Jan. 14-15 at Presbyterian College as a representative of the Mathematical Association of America Consultant's Bureau. Individuals on the 34 member bureau visit colleges and universities in order to review the mathematics curricula, discuss national reports and assess the local program. During the course of the visit, a lecture entitled "A Geometric Approach to Linear Programming" was presented.

ZOOLOGY

S. A. Gauthreaux (Asst Prof) received a grant of \$25,698 from the United States Air Force Office of Scientific Research. The grant, entitled "Radar Techniques for Air Force Applications in Avoidance of Bird-Aircraft Collisions and Improvement of Flight Safety" is for a fourteen and one-half month period.

S. A. Gauthreaux recently published a paper entitled "Wind and the Direction of Nocturnal Songbird Migration" in the journal, Nature.

CALENDAR OF CAMPUS EVENTS

Feb.	1	Mon.	Basketball - Furman at Furman (varsity & freshman teams).
Feb.	2	Tues. 4:00 p.m.	Food Science Seminar: Robert C. Ramsey (Gerber Products Co.) will speak on "Quality Attributes of A Technical Man in Today's Industry" -- P&AS Building, Room F-150.
Feb.	4-	Thurs.- 8:00 p.m.	Little Theatre - Food Industries Theatre.
Feb.	7	Sun.	
Feb.	4	Thurs. 3:00 p.m.	Agricultural Economics & Rural Sociology Seminar -- "Impact of a Chemical Plant on the Economy of Beaufort County," W.W. Hall Jr., Clemson University, Rm. 1, Kinard.
Feb.	6	Sat.	Basketball - South Carolina at CLEMSON (varsity and freshman teams).
Feb.	8	Mon.	Basketball - Rollins at CLEMSON.
Feb.	8	Mon.	Basketball - Freshmen vs. Davidson.
Feb.	9-	Tues.-	Sponsored by the Clemson Architectural Foundation - Design in the 70's: Outstanding Product Designs Selected by Architecture Design Faculty -- Rudolph Lee Gallery.
March	1	Mon.	
Feb.	10	Wed.	Leonard Pennario, Pianist, Littlejohn Coliseum.
Feb.	11-	Thurs.- 8:00 p.m.	Clemson Players - Daniel Hall Theatre.
Feb.	13	Sat.	
Feb.	11	Thurs. 4:00 p.m.	Physics Colloquium - Dr. Ronald Edge, Department of Physics University of South Carolina, will speak on "Channeling"-- Room 101, Kinard Laboratory of Physics.
Feb.	12-	Fri.-	Basketball - N.C. State, North Carolina -- North/South Doubleheader at Charlotte.
Feb.	13	Sat.	
Feb.	13	Sat.	Basketball - Freshmen at U.N.C. of Charlotte.
Feb.	15	Mon.	Basketball - at Wake Forest.
Feb.	17-	Wed.- 8:00 p.m.	The Clemson Players - <u>Guys & Dolls</u> , Daniel Hall Auditorium.
Feb.	20	Sat.	

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 10 No. 13

February 15, 1971

BIOLOGICAL SCIENCES MOVED; VOGEL APPOINTED DEAN

The University is transferring its basic biological sciences curriculum from one academic college to another in a major reorganization to strengthen all of the fundamental science programs.

The move was approved by the Board of Trustees at its Feb. 3 meeting. Effective July 1, the biological sciences (biochemistry, botany, microbiology and zoology) -- now in the College of Agriculture and Biological Sciences -- will be added to chemistry, geology, physics and mathematics which already form a tight core of basic sciences in the College of Physical and Mathematical Sciences.

Biochemistry, botany, microbiology and zoology will become departments within the academic unit which will be renamed the College of Physical, Mathematical and Biological Sciences.

Also effective July 1 is the appointment of Dr. Henry E. Vogel, head of the Department of Physics, as dean of the college. He succeeds Dr. C.V. Aucoin who is returning to full-time teaching duties as professor of mathematics. Associate dean will be Dr. Rufus K. Guthrie, who has served as director of the Division of Biology since September 1969.

In other action, the Board approved:

-- the following recommendation by the Committee on Names for Campus Buildings and Roads: Agricultural Engineering Building be named McAdams Hall in memory of William N. McAdams, former associate professor of agricultural engineering whose period of service spanned 20 years; Industrial Engineering Building be named Freeman Hall in memory of Edwin J. Freeman, former professor of metallurgy and head of industrial engineering who served the University for 37 years; the YMCA be named in memory of Preston B. Holtzendorff, Jr., general superintendant for the YMCA for 40 years; and Fike Field House be renamed Fike Recreation Center.

-- a resolution inviting Mrs. L. Mendel Rivers to make available to the University of letters, papers and memorabilia reflecting the remarkable life of her late husband, that they may be preserved and protected for posterity in the Archives of Robert Muldrow Cooper Library.

-- the appointment of Mr. Max L. Cetto as part-time lecturer in the College of Architecture for the spring semester of the 1970-71 academic year.

BIOLOGICAL SCIENCES MOVED: VOGEL APPOINTED DEAN Continued

-- the transfer of right of use of Camp Harry Daniels, located in Calhoun County, to the South Carolina State College.

-- increasing summer sessions fees to \$20 per semester credit hour for South Carolina residents and \$35 per semester credit hour for non-resident students, effective beginning of the 1971 summer sessions.

-- that Allen Wood Rigsby continue in the employment of the University for the fiscal year 1971-72 as Vice President for Executive Affairs, Secretary of the Board of Trustees, and University Counsel.

-- that the Administration be authorized to enter into contractual arrangements for ARA-Slater to provide all food service operations and catering services of the Clemson House, under general direction of the hotel manager, with arrangements to go into effect as soon as proper provision can be made for changes to buffeteria-style service in the Saber Room; and that Tiger Tavern be closed except for minimum and supplemental use by ARA-Slater and use of the hotel manager on a rental basis for special parties similar to the way the Purple, Gold, and Blue rooms are now used.

-- the appointment of James P. Burns as University Recorder.

POLICY AND PROCEDURES FOR SELECTING HONORARY DEGREE RECIPIENTS

The University Board of Trustees has approved the following policy and procedures for selecting honorary degree recipients:

Principles. Honorary degrees will be conferred in recognition of eminent achievement in scholarship or of high distinction in public service. The awarding of honorary degrees will be regarded as a method by which the University expresses its ideals and recognizes exceptional attainments.

Procedures for Nominating Candidates. Nomination of candidates for honorary degrees may be made by any interested person by submitting in written form the accomplishments of the nominee to the President of the University.

Procedures for Selecting Candidates. A committee is established consisting of the President of the University, who shall serve as Chairman; the President of the Faculty Senate, who shall serve as Secretary; and the two immediate past presidents of the Faculty Senate, currently in the employ of Clemson University. The committee shall be subject to the call of the President of the University, and shall submit its recommendations for the awarding of honorary degrees to the Board of Trustees for approval. Consideration for the awarding of honorary degrees will be limited to occasions of special significance to the University, when the awarding would clearly express the ideals of the University or recognize exceptional attainment.

SENIOR FULBRIGHT - HAYS PROGRAM FOR 1971-72 AND 1972-73

Announcements of remaining Fulbright opportunities for university lecturing and postdoctoral research abroad during the next academic year may be consulted at the Office of University Research (R. W. Henningson), or may be obtained from the Senior Fulbright-Hays Program, 2101 Constitution Avenue, Washington, D. C. 20418. Most of the openings are lectureships, chiefly in biology, chemistry, economics and business administration, engineering, the teaching of English as a foreign language, literature, mathematics, and physics. Lecturing appointments normally allow time for research. Several research awards are available in the Arabian Gulf States, Romania, and a few other countries; travel-only grants are now offered for research in Israel in the humanities and behavioral sciences.

Faculty members who may be interested in Fulbright grants for 1972-73 are invited to complete a simple registration form as soon as possible. Copies are available from the Office of University Research, or from Washington at the address given above. Registrants will receive the new announcement as soon as it is issued in the spring, in time to consider the possibilities and to apply before the closing date.

GRADUATE COUNCIL MEETING

The Graduate Council met in Room 21, Tillman Hall, on January 15, 1971 at 2:30 p.m. Present for the meeting were: Dean A. E. Schwartz, C. W. Bolen, W. C. Godley, H. W. Graben, V. S. Hodges, A. K. Jensen, W. L. Vick, J. S. Wolf, A. S. Tombes. R. E. Schoenike attended for R. M. Allen and G. R. Smith attended for G. D. Riggs.

The minutes of the Graduate Council meeting of November 19 were amended to have the first sentence in the third paragraph read, "Dr. Riggs questioned that the Graduate Council's only responsibility is to make "most presentable" the material we submit to the Commission on Higher Education." The minutes of the meeting of December 16, 1970 were approved as written.

The policy for loan and copying of Clemson University theses and dissertations was discussed. Dean Schwartz appointed a subcommittee consisting of A. K. Jensen, Chairman and A. S. Tombes and instructed the subcommittee to examine in consultation with Mr. Gourlay, Director of the Library, the present policy and report recommended changes to the council.

The council next considered a recommendation from the Department of Languages. The recommendation is that a two-semester accelerated sequence be set up (151, 152) which would carry six hours of undergraduate credit, taken for the express purpose of meeting the graduate reading requirement. The examination in each course would be standardized test (CEEB) comparable to the GSFT. A student would receive credit and a grade on these courses on a pass/fail basis. According to the Department of Languages, this recommendation, if approved, would not negate any of the revised graduate language policy except to place 151 on a pass/fail basis. Dean Schwartz directed Dr. Graben's subcommittee (charged previously with reviewing language requirements) to consider this recommendation in their study.

GRADUATE COUNCIL MEETING (Continued)

Dr. J. S. Wolf distributed a revised statement on Research in Absentia prepared by his subcommittee. After considerable discussion, Professor Hodges moved that the council approve the report as modified. The motion was seconded by Dr. Jensen and approved. A copy of the report, as approved, is attached to these minutes.

The next Council meeting was scheduled for Friday, February 12, 1971. The meeting was then adjourned.

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE MEETING, JANUARY 5, 1971

Present: D. R. LaTorre (Chairman), R. J. Calhoun, J. A. Hash, Mary Lou Hockenberry, M. W. Jutras, J. W. Gordon Gourlay (Secretary).

Minutes of the meeting of December 1 were approved.

Dr. LaTorre reported, (1) that Mr. Ralph Knowland had agreed to serve as chairman of an Ad Hoc Committee to investigate the feasibility of acquiring, cataloging, and storing audio-visual materials in the main library. He would appoint two additional members to serve with Mr. Knowland, (2) that he had expressed in a letter to Dean Green the concern of the University Library Committee over the freezing of funds for the purchase of books. He read Dean Green's reply to this letter.

Dr. LaTorre distributed for information and discussion, (1) the results of the computer printout of the faculty library survey, (2) a tabulation by departments of the response to each question on the survey, (3) individual comments of faculty members in several departments.

Mr. Gourlay discussed several recommendations that would be made when the self-study was completed.

Time of next meeting, Tuesday, February 2, at 4:00 p.m.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, JANUARY 22, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 3:50 p.m. in the Student Government Conference Room.

The following were present: Chairman Robert Behling, M. N. Lomax, Bobby Prochaska, John Idol, Larry Kemmerlin, M. W. Jutras, E. H. McCarter, A. Wood Rigsby and Secretary George Moore. Diane Kerr was absent.

ACTION: The minutes of the meeting of December 3, 1970 were approved as distributed.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, JANUARY 22, 1971 (Continued)

The Chairman mentioned to the Council that THE TIGER was interested in receiving copies of the minutes of AFSC meetings and asked for a decision regarding the request.

It was the concensus of the Council that the Chairman should advise THE TIGER of actions or discussions recorded in the minutes but only AFTER the minutes have been approved and forwarded to the President.

ACTION: On a separate motion by Dr. Idol, the Council recommended that the APPROVED minutes of AFSC meetings be forwarded to the University Publications Office for possible use in the NEWSLETTER.

Under the heading of old business, the Chairman noted that the Council had not received a reply from Mr. Bost to its request for a copy of the communication from the state auditor regarding the Student Services financial operations (see minutes of December 3, 1970). The Chairman asked Mr. Lomax to follow up on the request to Mr. Bost.

Discussion was reopened on the subject of allocation/reallocation of funds for a University Union. Mr. Kemmerlln proposed that the Council transmit the following three point resolution to the President:

1. The University should immediately proceed with the full renovation of Fike Field House and the addition of a pool, and work for the quickest possible completion of the full program envisioned for that building.
2. Whatever money is left from appropriation should be applied entirely for the construction of a University Union. If insufficient funds are available for its completion, the University should then seek additional appropriations from the State or a supplemental bond issue, so that the full program envisioned for the Union can be realized.
3. We feel that a new and separate office building for the Athletic Department is not a project which the University should fund at this time, especially with University Union funds. We recommend instead that the University mobilize the vast potential of its IPTAY supporters to fund such a building, with the College of Architecture providing the architectural work free of charge.

The motion, to propose the resolution as a Council recommendation, did not receive a second.

Dr. Prochaska discussed briefly the Faculty Senate's position regarding the Union. The Council felt that it might be helpful to have Vice President for Development Stan Nicholas visit with the Council and appraise recent developments in the Union project. The Chairman asked the Secretary if he would contact Mr. Nicholas and invite him to the February 4 Council meeting.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, JANUARY 22, 1971 (Continued)

After considering the schedules of Council members, a regular meeting time, 1 p.m. on Thursdays was established. Location will continue to be the Student Government Conference Room.

"The University Senate" will be the agenda item for discussion Jan. 28.

There being no further business the meeting adjourned at 4:45 p.m.

AGRONOMY AND SOILS

T. H. Wright, Jr. (Grad Stu) was a guest of the Southern Weed Science Society at Memphis, Tenn. on Jan. 19-21. A paper presented by Mr. Wright, "Persistence and Herbicidal Activity of Soil Applied Butylate," won first place in the student section from a field of twelve contestants. C. E. Rieck (Asst Prof) and B. J. Gossett (Assoc Prof) were co-authors.

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

"Talk-In" on Pesticides and the Environment. The present and future status of our environment is the responsibility of every individual - student, faculty, and staff. Rational, logical solutions to environmental pollution problems can be reached only if all persons are fully informed of the facts available. The "Talk-In" on pesticides and the environment will provide all students, faculty, staff, and other interested persons the opportunity to learn and discuss the facts about pesticides. A panel composed of S. B. Hays (Insecticides), W. M. Epps (Fungicides), C. E. Rieck (Herbicides), U. S. Jones (Fertilizers), and J. M. Stepp (Economics) will present the facts about pesticides in response to questions from the audience. The discussion sessions (1:15-2:45 and 3:15-4:45) will be held Thursday afternoon, February 25, in Tillman Hall Auditorium. This open discussion is co-sponsored by the Student Agricultural and Biological Sciences Council.

ECONOMICS

H. H. Macaulay (Alumni Prof) discussed results of his research in Water Resources at an invitational Graduate Seminar at Columbia University on Jan. 11.

B. R. Skelton (Assoc Prof) has been named to the National Commercial Arbitration Panel of the American Arbitration Association.

ELECTRICAL AND COMPUTER ENGINEERING

Anil Gupta (Grad Stu) and J. W. Lathrop (Prof) published an article "Comments on the Influence of Epitaxial Mounds on the Yield of Integrated Circuits," in the Dec. 1970 issue of the Proceedings of the IEEE.

ELECTRICAL AND COMPUTER ENGINEERING (Continued)

J. W. Lathrop (Prof) and J. N. Thurston (Alumni Prof) presented a paper, "Semiconductor Device Characteristics and Applications," at the Piedmont Sub-section meeting of the Institute of Electrical and Electronic Engineers. Clemson University was host for this meeting on Jan. 21.

A paper, "Minimum Variance Estimates of Signal Derivatives, a Problem in Instrument Landing Systems," by J. C. Martin (Prof), B. J. Prochaska (Asst Prof), and D. C. Stanzione (Grad Stu) was presented by the first author at the Fourth Hawaii International Conference on System Sciences, Honolulu, Hawaii, Jan. 13.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

S. B. Hays (Hd and Assoc Prof), W. C. Nettles (Prin Ext Spec), L. M. Sparks (Assoc Ext Spec), and F. H. Smith (Ext Spec) attended and participated in the Cotton Insect Research Conference of the National Cotton Council in Atlanta, Ga., Jan. 12-13. Results of the 1970 cotton insects research in S. C. were presented and plans made for research in 1971

R. F. Nash (Asst Prof) participated in a conference at Byron and Albany, Ga., with USDA personnel on pecan weevil research. Plans were made for 1971 research projects and for sources of funds for such projects.

ENVIRONMENTAL SYSTEMS ENGINEERING

T. M. Keinath (Asst Prof) presented several papers entitled "Concepts of Coagulation and Application of Inorganic Chemicals in Coagulation Processes" at the Professional Seminar on Chemical and Physical Methods for Treating Textile Wastes, Jan. 20-21, sponsored by the College of Industrial Management and Textile Science.

Wade H. Ponder joined the staff as an Instructor Jan. 1. He was previously Head of the Chemical Engineering Technology Dept. at Greenville TEC.

INDUSTRIAL MANAGEMENT

C. O. Shuler (Assoc Prof) published an article titled "Trends in Health Delivery" in the Jan. 1 issue of Hospitals: The Journal of the American Hospital Association.

Dr. Shuler has been awarded a grant of \$4,500 by the Dept. of Health, Education and Welfare to present a special program for health administrators during the summer of 1971. Scheduled for May 17-21, the course will be titled "Managerial Decision Making for Health Administrators." This is the third such program sponsored at Clemson by the Dept. of HEW and is conducted as part of the Professional Development Program offered by the College of Industrial Management and Textile Science.

INDUSTRIAL MANAGEMENT (Continued)

A "Federal Tax Seminar" co-sponsored by the Dept. of Ind. Management and the Internal Revenue Service was held recently and was attended by Certified Public Accountants, members of the S. C. Bar Association, tax attorneys, and finance and trust officers of banks and savings and loan associations. The members of the Internal Revenue Dept. from the Columbia office assisted Clemson's Accounting faculty in presenting this program, the second of an annual series of tax seminars and clinics.

INTERDISCIPLINARY STUDIES

H. R. Bungay (Prof of Bioengr) wrote an article entitled, "Computer Gases based on Fermentation" for the Dec. 1970 issue of ERM magazine, a publication of the Educational Research and Methods Division of the American Society for Engineering Education.

MECHANICAL ENGINEERING

C. A. Brandon (Assoc Prof) has been appointed to the position of Chairman of the Membership Development Committee of the Dixie Region IV of the American Society of Mechanical Engineers. The Region includes local sections in N. C., S. C., Va. and Eastern Tenn. and has over 2100 members.

SOCIAL SCIENCES

D. S. Trask (Instr) has published "Formation and Failure: the Populist Party in Seward County, 1890-1892," in Nebraska History (Fall, 1970).

J. V. Reel (Asst Prof) has reviewed Christopher Hill's God's Englishman: Oliver Cromwell and The English Revolution, in Catholic World (Feb. 1971).

Martin Slann (Asst Prof) has published "Prospects for Arab-Jewish Cooperation in Jerusalem," in New Outlook, Middle East Monthly (Feb. 1971).

TEXTILE DEPARTMENT

J. L. Lundberg (Hd and Assoc Prof) participated in the Seventh Biennial Education Conference of the American Chemical Society at the Ohio State University, Columbus, Ohio on Jan. 28-30.

J. J. Porter (Assoc Prof) presented a paper entitled "Waste Treatment for the Textile Industry" in Charlotte, N.C. to the Piedmont Section of the AATCC on Jan. 16.

H. M. El-Behery (Visiting Assoc Prof) presented a seminar on "Texturizing Processes -- Their Parameters and Limitations" to the Piedmont Chapter of the American Association for Textile Technology in Charlotte on Jan. 21.

ZOOLOGY

A. S. Tombes (Assoc Prof) presented a paper entitled "The Spermatheca of the Weevil, Sitophilus Granarius" to the Comparative Physiology Division of the American Society of Zoologists in Chicago, Dec. 26-30.

Dr. Tombes recently published a paper entitled "Aestivation (Summer Diapause) in Hypera postica (Coleoptera: Curculionidae). III Neuroendocrine and Physiological Adjustments in Postemergent Active and Diapausing Adults" in the Annals of the Entomological Society of America.

CLEMSON UNIVERSITY AT SUMTER

John Mullen, Jr. (Instr in Math) presented a talk to the Sumter High School Mathematics Club on the subject, "Flow Diagrams for Computer Programming" on Jan. 26.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JANUARY 12, 1971

The meeting was called to order at 4:15. Minutes of the previous meeting were approved as circulated. Professor K. Lehotsky, however called attention to the apparent emphasis given in the previous minutes to salary in questioning a statement made by Dr. Morris, Commissioner of Higher Education, who had said in the Greenville News that faculty salaries at Clemson were the equal of those at comparable institutions. Professor Lehotsky pointed out that the objection was not so much because salaries were in fact somewhat lower here than elsewhere, but rather because of the inaccuracy of the statement.

President Prochaska reported that he had asked further questions for clarification of the University-wide budget cuts in response to faculty requests. Salaries were excluded from the cut-back, but four areas were specifically affected: staff vacancies; graduate fellowships; equipment purchases; and travel allowances. All travel money still in college budgets has been cut by 50% across the board. Priorities on expenditure of the remainder have been left to the discretion of the academic deans.

President Prochaska reported that there is still no word officially on the University Union project. The office of the Vice President for Development, which is gathering information relevant to the project, has not acquired all of the information that it desires before reporting to the Senate.

President Prochaska reported that the Senate's resolution discouraging examinations given in other than scheduled class hours will be brought to the attention of the academic deans at their regular meeting by Dean Hurst. He also reported a slight change in the composition of Ad Hoc Committee C; at his own request, Professor Harold Cooledge has been made an advisory member, rather than a regular voting member of the committee, since his official position as marshal makes it inadvisable for him to hold voting status. Further, President Prochaska reported on a November 30 resolution passed by Student Senate officers to resign unless certain grievances were dealt with

MINUTES OF THE MEETING OF THE FACULTY SENATE, JANUARY 12, 1971 (Continued)

satisfactorily; these complaints concerned the Department of Services, the student judiciary branches, the review of student judiciary sentences by the Administration and the chance of increasing original sentences, and the power of veto held by the Administration over Student Senate resolutions. President Prochaska reported that on Jan. 11 the Student Senate passed a resolution to form committees of students and representatives from the Office of Student Affairs to deal with each of these matters operating under a student-imposed deadline of March 1.

For the Welfare Committee, Professor J. C. Mullins reported that the matter of student dress code was still in consideration. A request to his committee to investigate excessive noise during class hours caused by maintenance and repair work by the physical plant crews had been received and Mr. Rochester has offered to listen to and attempt to remedy specific complaints. Chief grievances centered around work done in the P&A Bldg. and lawn mowing and floor waxing during regular class hours.

For the Admissions and Scholarship Committee, Professor John Idol reported that no meeting has been held in December.

For the Research Committee, Professor J. C. Fanning presented a complete report on the "Clemson Bottoms," some 140 acres lying between the two diversion dams along the old Seneca River bed. The report included the history of arguments presented to the U. S. Corps of Engineers which resulted in the construction of the \$3.5-million dams, including a statement from the Board of Trustees referring to this land as "valuable" and "absolutely irreplaceable" for the Clemson program in agriculture and related research. Evidence presented from the Senate floor seconded the Board of Trustees' opinion, pointing out examples such as research on corn stunt virus, now possible only in that particular soil, at that place, and currently in progress. Professor Fanning's report concluded with a summary of current construction and future plans which will utilize parts of the land for baseball and football fields, a soccer field, a running track, a putting green, spectators' stands, animal pens, and an area for highway research, all of which will make the land itself unusable for its present and projected purposes in agricultural research. For his committee, Professor Fanning proposed a resolution calling for a faculty voice in the change of use of Clemson lands from original or present uses; this was seconded by Professor B. C. Caffrey.

Professor K. Lehotsky proposed an amendment, seconded by Professor J. L. Arbena, requesting that faculty members from affected departments be part of the decision-making group. A motion by J. C. Mullins to table the amendment and the original motion, seconded by Professor D. R. LaTorre, on the grounds that the Senate's Ad Hoc Committee B was working on a proposal which would ask for faculty voice in future Planning and Development Committees, was defeated by a vote of 18 to 10. Discussion of the Lehotsky amendment included the concern that, should changes at the University involve no specific department, a strict interpretation of the wording of the resolution could exclude the faculty on the grounds that there were no "affected departments," but the amendment passed by a vote of 18 to 10. A further amendment, proposed, seconded, and passed unanimously, added "facilities" to "land" as the concern of the faculty in planning.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JANUARY 12, 1971 (Continued)

Discussion of the amended motion from the floor included first the suggestion that it was the job of the various academic deans to fight for preservation of lands and/or facilities needed for the work of their departments. Senate members argued that in a school or college where the dean might be acquiescent to suggestion made him from his superiors, the voice of the faculty was urgently needed to put the case and viewpoint of dissenters from such suggestions. It was also pointed out that representatives from the faculty of departments who desired a change, that might be opposed by another department, would have equal voice in such a planning group. The motion as finally presented read:

The Faculty Senate recommends careful consideration be made before the Clemson bottom land or any other area is removed from academic or research use. In order to implement this recommendation it is requested that faculty representatives of the departments affected participate in any decision pertaining to contemplated changes in use of University lands and facilities.

The motion passed by a vote of 21 to 7 with no abstentions. It was pointed out from the floor after the vote that some negative votes represented senators who agreed with the need for faculty representation in such planning, but feared that the proposal of Ad Hoc Committee B might represent a duplication of effort.

For the Policy Committee, Professor H. D. Adams reported that the Scheduling Committee will meet on January 21 to discuss such matters as night quizzes, exam schedules for one-hour courses, the present class meeting pattern, and the 1971-72 class schedules. Senate members who have suggestions or criticisms should make their views known to the Scheduling Committee members in their own departments and ask for a direct report after the meeting.

For Ad Hoc Committee A, Professor M. W. Jutras reported that the revision of the faculty manual is complete. Two copies of the revision will be sent to each Senate member, one for his files and one on which he may make notes for discussion at a special Senate meeting to be called at the end of January, at which time the revision will be approved, disapproved, and/or amended.

For Ad Hoc Committee B, Professor R. F. Borgman reported that their work is not yet complete, but a report should be ready for the Senate in February. For Ad Hoc Committee C, Professor B. J. Skelton reported that the committee will begin work by studying the reports submitted during previous investigations of the problems of and recommendations for graduation.

The meeting was adjourned at 5:18.

Absent: J. H. Bond; V. S. Hodges; G. W. Gray; M. K. Richardson; W. E. Castro.

LIEUTENANT GOVERNOR TO SPEAK AT FORT HILL CLEMSON CLUB BANQUET

Lieutenant Governor Earle Morris will be guest speaker at the Clemson Week Around the World Banquet sponsored by The Fort Hill Clemson Club on Friday, March 5, at the Clemson House. Social hour begins at 7 p.m., followed by dinner at 8. Due to limited space, only 300 tickets will be sold. Tickets, \$5 each, are available at the Alumni Office in the Trustee House or the IPTAY office on campus and Dalton's Furniture Company in Pickens and the office of the Easley Progress in Easley.

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES

The College of Agriculture and Biological Sciences will present a colloquium on student-faculty communicating Mar. 9-10.

The two-day program, presented in cooperation with the Counseling Center, Student Health Center, YMCA, student and faculty honorary fraternities and community religious leaders, will feature faculty and student speakers participating in informal discussions of campus-wide problems.

Some of the topics which will be discussed include drugs, sex, the estranged student, minority group difficulties and problems encountered by married students.

T.L. Senn, head of the Horticulture Department, will serve as colloquium coordinator.

SHILLITO - HAMMETT SCHOLARSHIP

A scholarship is available to a son or daughter of a member of the South Carolina State Employees' Association. Prime consideration for the award of the scholarship will be the academic record and the financial need of the applicant. Entering freshmen are not eligible for this scholarship.

Additional information and application forms may be obtained at Financial Aid Office, 24 Tillman Hall. Deadline for filing applications is April 30th.

ANNUAL RE-WORK PERIOD - TRAVELERS INSURANCE GROUP

The annual re-work period for the Travelers Insurance Group will be March 1-31, 1971. Company representatives will be on campus during this period and will be available to explain the Travelers plans and coverage to any interested employee. Visits will be made to any department desiring such and at times most convenient to the respective departments.

Any present member desiring to make changes to fit individual needs may do so at this time. Employees presently enrolled and desiring no changes will be automatically continued and need not contact the representatives at this time. Employees who desire to obtain this type of insurance coverage must make application during their first 31 days of employment, or during this rework period.

If you wish to make an appointment with one of the representatives, you may do so by contacting Mr. W.J. Stamey, Personnel Division, Extension 2426.

FOOD SCIENCE

The director of the federal agency charged with protecting the quality of American food will speak at Clemson University Friday, Feb. 19, at a banquet of the Dixie Section, Institute of Food Technologists (IFT).

Dr. Virgil O. Wodicka, Bureau of Foods, Food and Drug Administration (FDA) will speak on "Food Programs of the FDA." The meeting is hosted by Clemson's food science department.

The IFT is a 10,000 member international professional organization; the Dixie Section has some 200 members in South Carolina, Georgia and Alabama.

Details and attendance information are available from Dr. J.H. Mitchell Jr., Food Science Dept., Clemson University, 29631.

PURCHASE OR RENTAL OF ACADEMIC APPAREL

The Purchasing Department has mailed to the various Deans, Directors and Department Heads the usual information pertaining to the purchase or rental of academic apparel for Honors and Awards Day, April 7, 1971 and Commencement Day, May 7, 1971. The information forms accompanied by a check made payable to Clemson University, should be in the Purchasing Office no later than March 1 for Honors and Awards Day and no later than March 15 for Commencement Day.

WILDLIFE ECOLOGY PROFESSOR TO SPEAK HERE

Dr. George Cornwell, associate professor of wildlife ecology at the University of Florida, will speak at the University as a lecturer for The Belle W. Baruch Research Institute of Clemson University. He will speak at a 4 p.m. seminar and at an 8 p.m. general lecture, outlining the opportunities which exist for ecologists to become more involved in solving man's immediate environmental problems. Aside from his Clemson lectures, Dr. Cornwell will speak at five other colleges and universities throughout the state under the auspices of The Belle W. Baruch Research Institute.

CALENDAR OF CAMPUS EVENTS

Feb.	15	Mon.		Basketball - at Wake Forest.
Feb.	17-	Wed.-	8:00 p.m.	The Clemson Players - <u>Guys & Dolls</u> , Daniel Hall
Feb.	20	Sat.		Auditorium.
Feb.	20	Sat.		Basketball - Virginia Polytechnic Institute at Clemson.
Feb.	20	Sat.		Basketball - Freshmen vs. Georgia.
Feb.	23	Tues.		Basketball - Maryland at Clemson.
Feb.	23	Tues.		Basketball - Freshmen vs. Campus All Stars.
Feb.	23-	Tues.-		Poultry Health & Management Short Course - 15th Annual
Feb.	24	Wed.		Clemson House.
Feb.	24	Wed.	4:00 p.m.	Zoology Seminar - Dr. Sol Kramer, College of Medicine, Department of Psychiatry, University of Florida, will speak on <u>Ethology; A Radical Approach to Animal Behavior</u>
Feb.	24	Wed.	7:30 p.m.	Zoology Club Address by Dr. Sol Kramer, <u>Behavioral Aspects of LSD Psychotherapy</u> .
Feb.	25	Thurs.	3:00 p.m.	Agricultural Economics and Rural Sociology -- "Use of Simulation Techniques in Planning Economic Development: The Nigerian Experience" -- Glenn L. Johnson, Michigan State University.
Feb.	25	Thurs.	1:15 p.m. 3:15 p.m.	"Talk-In" on Pesticides and the Environment. An open discussion for faculty, students, and staff, Tillman Auditorium. (2 sessions)
Feb.	26	Fri.		Basketball - Wake Forest at Clemson.
Feb.	26	Fri.		Basketball - Freshmen vs. Campus All Stars.
March				Army ROTC - Federal Inspection.
March				Army ROTC - Military Ball.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 14

March 1, 1971

UNIVERSITY RECEIVES RESEARCH GRANTS TOTALING \$76,495

The University has received two research grants totaling \$76,495.

A grant of \$32,495 has been awarded to Dr. Tah-Teh Yang, Prof. of Mechanical Engineering, for the development of a carbon dioxide gun to be used primarily for treating serious burns, cleaning wounds, and other surgical procedures. The grant, awarded by the U.S. Army Medical Research and Development Command, is to support the first year's work.

A \$44,000 grant has been awarded to Dr. Robert H. Barker, Assoc. Prof. of Textiles and Chemistry, to support further research aimed at improving the treatment of cotton to make it flame resistant and thus one of the safest fibers for consumers. The grant, awarded by Cotton Incorporated, is for the third year of the research project which began in 1969. Previous grants totaled \$52,800.

BAUKNIGHT NAMED CONSERVATION EDUCATOR OF THE YEAR

Lehman M. "Frosty" Bauknight, Jr., Assoc. Prof. of Agricultural Economics, has been named South Carolina's Conservation Educator of the Year in the governor's conservation achievement awards program. The program is sponsored by Sears Roebuck Foundation under the auspices of the South Carolina Wildlife Federation and the National Wildlife Federation. Gov. John West presented the award to Bauknight at ceremonies in Columbia.

LIEUTENANT GOVERNOR TO SPEAK AT FORT HILL CLEMSON CLUB BANQUET

Lieutenant Governor Earle Morris will be guest speaker at the Clemson Week Around the World Banquet sponsored by The Fort Hill Clemson Club on Friday, March 5, at the Clemson House. Social hour begins at 7 p.m., followed by dinner at 8 p.m. Due to limited space, only 300 tickets will be sold. Tickets, \$5 each, are available at the Alumni Office in the Trustee House or the IPTAY Office on campus and Dalton's Furniture Company in Pickens and the office of the Easley Progress in Easley.

GENERAL FACULTY MEETING

A meeting of the General Faculty has been set for 10:00 a.m. on Thursday morning, May 6, 1971, in the auditorium of Tillman Hall.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, JANUARY 28, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:05 p.m. in the Student Government Conference Room.

The following were present: Chairman Robert Behling, B. J. Prochaska, M. W. Jutras, Larry Kemmerlin, E. H. McCarter, M. N. Lomax, John Idol, A. W. Rigsby, George Moore. Diane Kerr was absent.

ACTION: The minutes of the meeting of January 22 were approved as distributed, after the Council clarified the second action item as "the consensus of the Council" rather than an approved motion.

Chairman Behling entered into the record a memorandum from Mr. W. V. Bost, Assistant to the Vice President for Student Affairs. The text of the memorandum follows:

"Chairman Behling asked if I would provide the committee with a copy of the State auditor's communication regarding the necessity of the Voucher System for the Department of Services.

"Mr. Lucas' communication was made at a meeting attended by Mr. Morris, who had opportunity to ask any questions. Since the report was not written and no minutes of the meeting were made, a written communication is unavailable.

"At present, the Department of Services is operating under the Voucher System, the transmittal of books to a University account having been completed. However, a committee has been established to study the possibility of the Department of Services as a separate, incorporated entity. Mr. Lucas will no doubt be coming to campus again to study the matter. I am sure he will once again state why the change to a University account was proper and necessary."

Regarding the University Union project, Chairman Behling asked the Secretary to invite Mr. Stan Nicholas, Vice President for Development and Mr. B. E. Trent to the Council meeting of February 10. Discussion will continue at that time on the University Union/Fike Field House renovation/Stadium Road facility.

The subject of honorary degrees awarded by the University was explored, and General Rigsby told the Council that he could report further on this subject officially at the next meeting of the Council.

A subject that was considered by a previous Tri-Level Committee in 1970 (see minutes of January 28, 1970) --- student and faculty representation on the working committees of the Board of Trustees --- was considered briefly. Chairman Behling asked each Council member to consider his position carefully and be prepared to vote on a motion regarding this subject at the next meeting.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, JANUARY 28, 1971 (Continued)

The University Senate agenda item was brought to the floor. After considerable deliberation, Chairman Behling appointed a subcommittee to draft a statement of the Council's opinion on the subject. Those appointed were: B. J. Prochaska, Chairman; Diane Kerr and M. N. Lomax.

ACTION: The regular meeting time for the Council was changed to 1:30 p.m. Wednesdays in the Student Conference Room.

There being no further business the meeting adjourned.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 2, 1971

A special meeting of the Faculty Senate, called for the purpose of considering the proposed revision of the Faculty Manual, was called to order at 4:18. Minutes of the meeting of January 12 were approved as circulated with the correction that the corn disease referred to on p. 2 of the minutes as "corn blight" should be corrected to read "corn stunt."

President Prochaska announced the presence by invitation at the meeting of Dean Victor Hurst, member ex officio of Ad Hoc Committee A, and his representative in committee deliberations, Dean Claud Green. Then President Prochaska turned the meeting over to Professor M. W. Jutras, who presented the suggested revision, paragraph by paragraph, for the approval of the Senate.

Corrections of typographical errors and minor changes in wording to make intention clearer comprised the largest number of suggestions put forward. One major change from the original manual, proposed and seconded from the floor, was the alteration of "3 days" to "2 days" in the statement under "Sick Leave" which stipulates that "When sickness occurs within a period of annual leave and continues 2 or more consecutive days, the period of illness may be charged to accumulated sick leave..." The motion to make the change to read as quoted above was approved.

The proposed manual, including the changes approved by the Senate, was discussed and approved through the section on "Leave During Summer Sessions" on p. 17. At this point a motion to recess was heard, a further meeting to complete the manual's 34 pages to be scheduled at the President's discretion.

The meeting was recessed at 6:25 p.m.

Absent: J. H. Bond; T. R. King, G. W. Gray; J. K. Johnson; J. L. Idol; B. F. Cook; W. E. Gettys; F. J. Keller; J. C. Fanning, Jr.

SELF-STUDY REPORTS AVAILABLE IN LIBRARY

Copies of departmental and college or school self-study reports have been placed in the South Carolina room of the University Library for use by interested faculty and staff.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 10, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:35 p.m. in the Student Government Conference Room.

The following were present: Chairman Robert Behling, B. J. Prochaska, M. W. Jutras, E. H. McCarter, M.N. Lomax, John Idol, A. W. Rigsby, Diane Kerr, George Moore. Visitors present were Vice President for Development, Stanley Nicholas and YMCA Executive Secretary, Buford Trent. Larry Kemmerlin was absent.

Chairman Behling noted that in the minutes of Jan. 28, 1971, references to a Student Union was in all cases references to a "University Union" facility that would serve all facets of the University family. The reference to student representation on working committees of the Board of Trustees was in fact a discussion of both student and faculty representation.

ACTION: Following these clarifications, the minutes of the meeting of January 28 were approved.

The Chairman introduced the Council's two guests -- Vice President for Development Stanley Nicholas and YMCA Executive Secretary Buford Trent, and called for questions from the Council regarding the University Union/Fike Field House renovation/stadium road facility.

In response to questions, Mr. Trent indicated that he was a member of the Union Building Committee and was deeply interested in providing in the Clemson Union every possible facility for which Clemson students, faculty and staff had expressed an interest.

Mr. Nicholas emphasized that the Union development should be thought of in terms of a total development including both a union building and renovation of Fike Field House. Since the latter would displace intercollegiate athletics, it is also necessary that thought be devoted at the same time to some plan to house the athletic administrative offices and training facilities. He noted that student evaluation of what the union should provide has apparently shifted to an emphasis on "physical" from a previous emphasis on "social" facilities.

The Council, as well as others present, agreed that there was every indication from students, faculty and others concerned that the renovation of Fike Field House should proceed as soon as possible (current forecasts project a starting date of June 1971 and completion date of August 1972). Additional funds are needed, and are being sought to insure that both the University Union Building and stadium road facility be built quickly and as completely as desired.

Because of extended discussion on the Union, votes on Faculty-Student Representation on working committees of the Board of Trustees and a sub-committee report on the establishment of a University Senate were rescheduled for next week.

There being no further business the Council adjourned at 2:30 p.m.

AGRICULTURAL ECONOMICS & RURAL SOCIOLOGY

J.C. Hite (Asst Prof) participated in a panel discussion on "Environmental Protection and You" at the annual convention of the American Association of Retired Persons in Atlanta on Feb. 3.

J.C. Hite (Asst Prof) appeared on the SC-ETV program, "Nine 30" on Feb. 9 to discuss on-going research in the economics of environmental planning in coastal areas of South Carolina.

W.J. Lanham (Head and Prof) discussed the topic "Rural Development in the 1970's: An Action Program in Rural Development as Viewed by an Agricultural Extension Economist" at the joint session of the Agricultural Economics Section and the Rural Sociology Section, Association of Southern Agricultural Workers, Jacksonville, Fla., Feb. 1, 1971.

V.A. Boyd (Assoc Prof) chaired a session on "Youth" in the Rural Sociology Section, Association of Southern Agricultural Workers, Jacksonville, Fla., Feb. 1, 1971, and was named Secretary-elect of the Rural Sociology Section.

E.L. McLean (Asst Prof) read a paper, "Small Town Development and Population Redistribution" at the Rural Sociology Section, Association of Southern Agricultural Workers, Jacksonville, Fla., Feb. 3. Patricia Beth Guseman, Texas A&M University was co-author of the paper.

AGRONOMY AND SOILS

Mr. John R. Steer (Agronomy Senior) presented a talk entitled "The Environmental Crisis - As a Student Sees It," to the Southern Section, Soil Conservation Society of America on Feb. 3, 1971, in Jacksonville, Fla.

CHEMICAL ENGINEERING

F.C. Alley (Prof) presented talk entitled "In-Plant Pollution Control" at the January meeting of the American Society for Metals in Greenville. Dr. Alley presented a paper entitled "Application of Incineration to Industrial Waste Control" at a two-day seminar on "Chemical and Physical Methods for Treating Textile Wastes" sponsored by Industrial Management and Textile Science Jan. 20-21 in Clemson.

W.B. Barlage (Assoc Prof) presented two seminars entitled, "Experimental Methods for Determining the Effect of Surfactants on Gas Absorption in Liquid System," and "Gas Absorption in Non-Newtonian Liquids," to the Department of Chemical Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Va., Jan. 18, 1971.

CHEMICAL ENGINEERING Continued

D.F. Bruley (Assoc Prof) co-authored the following papers: (1) "A Computer Simulation for Prediction of Oxygen Limitations In Cerebral Gray Matter" The Journal of the Association for the Advancement of Medical Instrumentation (JAAMI) Vol. 4, No. 6, pp.211-223, (1970) with D.D. Reneau and M.H. Knisely; (2) "Simulation of Oxygen Transport In the Microcirculation by Monte Carlo Methods," Simulation, Vol. No. 5, pp. 206-212, Nov. (1970) with M.R. Halberg and M.H. Knisely; (3) "Process Control System Study," Chemical Engineering Laboratory Problems, Vol. 3 (1971).

C.E. Littlejohn (Head) announces that the Dow Chemical Company has made an unrestricted grant of \$1000 to the Chemical Engineering Department for 1971-72. Also, the Ethyl Corporation has renewed their undergraduate scholarship to the Department of Chemical Engineering for 1971-72.

Dr. A.B. Metzner will present a seminar entitled "Behavior of Polymeric Liquids in Flows of Short Duration and in Stretching Flows" at 4:00 p.m. in Room 100 Earle Hall. Dr. Metzner is a Professor of Chemical Engineering at the University of Delaware and a recognized world authority in the field of Non-Newtonian Fluids.

COLLEGE OF ENGINEERING

J.L. Edwards (Assistant to the Dean) has been notified of his appointment as State Guidance Coordinator for the Guidance Committee of the Engineers' Council for Professional Development.

DIVISION OF INTERDISCIPLINARY STUDIES

H.R. Bungay (Prof) presented a seminar at the University of Georgia on Feb. 5, 1971, entitled "Applications of Parallel Logic Analog Computers in Biology."

ELECTRICAL AND COMPUTER ENGINEERING

Robert W. Snelsire (Assoc Prof) has been selected as reviewer for the Institute of Electrical & Electronics Engineers' transactions on computers. Dr. Snelsire has been asked to evaluate papers in the area of logic and switching theory to determine their suitability for publication.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Dr. Harold A. Loyacano (Asst Prof) went to Biloxi, Miss. to work with the Technical Committee for Regional Project on Aquatic Food Animals and attended the Catfish Farmers of America Convention, Feb. 4, 5 and 6.

Dr. Richard C. Fox (Prof) went to Atlanta, Ga. on Feb. 17, for a meeting with U.S. Forest Service personnel from the Southeastern and Southern Stations to coordinate a cooperative project, including financial support.

ENTOMOLOGY AND ECONOMIC ZOOLOGY Continued

Dr. L.G. Webb (Assoc Prof) went to Raleigh, N.C. Feb. 16-19 to attend and participate in a Statistical Workshop, sponsored by the S.C. Wildlife Research Department.

A Grant-in-Aid in the amount of \$400 has been awarded to Entomology and Economic Zoology by Stauffer Chemical Company for research studies on cotton insects.

ENVIRONMENTAL SYSTEMS ENGINEERING

Who Is Responsible For Clean Water? - This was the theme of an environmental control workshop for forty-seven municipal and county officials held on Feb. 11 in Greenwood, S.C. The workshop was sponsored by the Environmental Systems Engineering Department at Clemson University as part of a grant under Title I of the Higher Education Act of 1965. Don Hill, Jim Glennon, and John Austin of the ESE Department assisted with the workshop.

EXTENSION HOME ECONOMICS

Dr. Ruby Craven (State Leader) participated in the winter meeting of the Board of Directors of the American Home Economics Association, Washington, D.C., Jan. 28-29. As Chairman of the State Presidents' Unit, she serves on the board. The new headquarters building of the Association, located on Massachusetts Ave., was dedicated on Jan. 28.

FORESTRY

A Conservation Clinic was held on campus on Jan. 23 as part of the Boy Scouts of America's Project SOAR, Save Our American Resources. One hundred and thirty adult Scout Leaders attended. Garnett R. Craddock (Prof Agronomy and Soils), Lloyd G. Webb (Assoc Prof Entomology and Zoology), J.R. Warner (Prof Forestry), Marlin H. Bruner (Assoc Prof Forestry), R.E. Schoenike (Assoc Prof Forestry), A.C. Malcolm (Asst Ext Spec Forestry), T.V. Wilson (Prof Agricultural Engineering), Sarah Walker (Asst Prof RPA), and Dean W.H.D. McGregor all participated in the program organized by W.J. Barker (Prin Ext Spec Forestry). R.M. Allen (Prof and Head) moderated the program.

T.E. Wooten (Asst Prof) received a grant of \$3,000 from the Southern Forest Institute for continuation of his project "X-ray Analysis of Increment Cores from Hardwood Species."

R.M. Allen (Prof and Head) presented an invited paper "Planting Stock and Techniques: Effect on Productivity" at the 50th anniversary meeting of the Appalachian Section, Society of American Foresters that was held in Charleston Feb. 4 and 5.

MATHEMATICS

Prof. William H. Ruckle presented a colloquium talk on "How to Add Numbers -- An Introduction to Series Summability" at West Georgia College on February 4, 1971.

MATHEMATICS Continued

Prof. Robert E. Haymond presented two colloquium talks on "Discrete Digital Models" and "Continuous Digital Models" at Georgia College at Milledgeville on Feb. 4 and 5, 1971.

Prof. Thomas G. Proctor presented a colloquium talk on "Use of Differential Equations in Some Ecological and Inventory Problems" at Georgia College at Milledgeville on Feb. 4, 1971.

MECHANICAL ENGINEERING

J.K. Johnson (Assoc Prof) was recently awarded a certificate of appreciation by the National Council of The American Society of Mechanical Engineers for services in advancing the engineering profession as a member of the Executive Committee from 1965-1970 and as Section Chairman for 1969-1970.

MODERN LANGUAGES

Edwin P. Arnold (Instr), Jo Ann McNatt (Instr) and Patricia W. Wannamaker (Asst Prof) participated in seminars on Feb. 6, sponsored by the S.C. Conference of Foreign Language Teachers.

Mr. Arnold spoke on "Culture in the Foreign Language Classroom" at the Citadel and Dr. Wannamaker discussed "Foreign Language Testing" at U.S.C. in Spartanburg.

PHYSICS

P.B. Burt (Assoc Prof) and F.J. Woods (Grad Student) presented a paper at the New York meeting of the American Physical Society on Feb. 1, 1971, entitled Integral Approximations to Schrodinger Equation.

Also, at that same meeting F.J. Woods (Grad Student) presented a paper entitled Approximations to Dirace Equation.

A.L. Laskar (Assoc Prof) and A. Batra, G. Brebec, and L. Slifkin (Univ. of N.C.) published a paper in the July, 1970, issue of Radiation Effects (Great Britain), entitled "New Models for Impurity Tracer Diffusion in Silver Halides."

PLANT PATHOLOGY AND PHYSIOLOGY

Dr. James M. McGuire from the Department of Plant Pathology, University of Arkansas will present a seminar on "The Relationship of Tobacco Ringspot Virus to the Nematode, Xiphenema americanum," March 10, 1971 at 12:15 p.m. in Room 222, Long Hall. The seminar is sponsored by The Department of Plant Pathology and Physiology and is open to all interested persons. As indicated, it will begin at 12:15; if you like, bring your lunch. Dr. McGuire's seminar will deal with the mode of transmission of the tobacco ringspot virus by nematodes. Emphasis will be placed on his recent work in locating the virus inside the nematode by electron microscopy.

POULTRY SCIENCE

Dr. M.A. Boone of the Poultry Science Department, Clemson University, was elected Chairman of the Poultry Section of the Association of Southern Agricultural Workers, Inc., at the Feb. 1-3, 1971, meeting held in Jacksonville, Fla. Dr. Boone held the position of Vice Chairman last year. He is also a director and member of the Executive Committee of the A.S.A.W. At this meeting, he also presented a paper entitled "Effect of Temperature Stress on Body Temperature, Survival Time and Feed and Water Consumption of Adult Turkeys" authored by J.F. Knechtges and M.A. Boone.

On Jan. 31, 1971, he attended the seventh annual meeting of the Southern Regional Avian Environmental Physiology and Bioengineering Study Group in Jacksonville, Fla., where he presented two papers entitled "Body Temperature of Turkey Poults Exposed to Chilling Rain" authored by J.E. Jones and B.D. Barnett, and "Effect of Ambient Temperatures on Semen Production in Turkeys" authored by J.F. Knechtges and M.A. Boone.

U.S. WEATHER BUREAU

Alex J. Kish (Agricultural Meteorologist, National Weather Service) presented a paper "A Modified Heat Unit System for Predicting the Maturity of Snap Beans" before the Southern Region, American Society for Horticultural Science, which was held in conjunction with the Annual Proceedings, Association of Southern Agricultural Workers, Jacksonville, Fla., Feb. 2, 1971. Co-authors were W.L. Ogle and C.B. Loadholt.

68th ANNUAL TRUSTEE MEDAL SPEECH CONTEST

The deadline for entering the 68th Annual Trustee Medal Speech Contest is Monday, Mar. 1. The contest is held each year to select the top speaker from the University's undergraduate enrollment. Student speakers present 7-10 minute persuasive speeches pertaining to controversial issues of campus, local, state, national or international scope. Preliminary rounds will be held Thursday, Mar. 4 at 3:00 p.m. in Daniel Hall Auditorium. Contest finals take place Monday, Mar. 8 at 7:30 p.m. in Lowry Hall Auditorium.

CLEMSON ALUMNI PROGRAM RANKS NINTH NATIONALLY

The following is a reprint from "A Study of Voluntary Support for Public Higher Education, 1968-1969" produced by G.A. Brakeley & Company, Inc:

"The five leading institutions on the solicitations response honor roll also appeared on the 1966-67 honor roll. This year's newcomers are Ball State, Miami, (Continued on next page.)

CLEMSON ALUMNI PROGRAM RANKS NINTH NATIONALLY Continued

Clemson, South Carolina State College and Akron."

ALUMNI SOLICITATION RESPONSE HONOR ROLL

	Alumni Solicited	Alumni Donors	% Response
VMI	4,852	3,622	74.6
S.D. School of Mines	3,861	2,451	63.5
Ga. Tech	33,718	17,581	52.1
Southern Miss.	18,400	9,060	49.2
Texas A & M	42,000	19,951	47.5
Ball State	27,150	8,708	32.1
Miami U.	31,991	10,240	32.0
S.C. State	315	95	30.2
Clemson	17,330	4,984	28.8
Akron U.	19,600	5,306	27.1

CALENDAR OF CAMPUS EVENTS

March			Army ROTC - Federal Inspection.
March			Army ROTC - Military Ball.
March 2-	Tues.-		Sponsored by the Clemson Architectural Foundation -
March 24	Wed.		Elbridge Gordon -- One Man Show - Paintings -- Rudolph Lee Gallery.
March 2	Tues.		Basketball - Duke at Duke.
March 2	Tues.	4:00 p.m.	Food Science Seminar: Dr. Ivan D. Jones (N.C. State Univ.) will speak on "The Brining and Pickling of Cucumbers -- Major Problems and Recent Trends." P&AS Bldg., Room F-150.
March 3-	Wed.-	8:00 p.m.	Clemson Music Club - Food Industries Theatre.
March 6	Sat.		
March 4	Thurs.	3:00 p.m.	Agricultural Economics and Rural Sociology Seminar Series - M. Burrell Richardson, Clemson University -- "The Costs of Treating Liquid Waste in the S.C. Textile Industry," Rm. 1, Kinard Laboratory of Physics.
March 4	Thurs.	4:00 p.m.	Physics Colloquium - Dr. Robert Stoeckly, Department of Physics and Astronomy, Rensselaer Polytechnic Institute, will speak of "Stellar Structure and Interstellar Matter" - Room 101, Kinard Lab. of Physics.

CALENDAR OF CAMPUS EVENTS Continued

March 5	Fri.		Annual Spring Banquet of Ft. Hill - Clemson Alumni Club at Clemson House.
March 6	Sat.		Baseball - Louisville at Clemson.
March 9	Tues.		Clemson Band Concert - Coliseum.
March 9	Tues.		Agricultural Symposium.
March 10	Wed.		Johann Strauss, Ensemble of the Vienna Symphony Orchestra - Littlejohn Coliseum.
March 10	Wed.	12:15 p.m.	Plant Pathology Seminar - Dr. James M. McGuire, Dept. of Plant Pathology, Univ. of Arkansas, will speak on <u>The Relationship of Tobacco Ringspot Virus to the Nematode, Xiphenema americanum.</u> (Sack lunches usual).
March 11	Thurs.		ACC Basketball Tournament -- Greensboro, N.C.
March 11	Thurs.	4:00 p.m.	Physics Colloquium - Dr. Thomas L. May, Dept. of Astronomy, Univ. of Illinois, will speak on "Cosmological Models with Matter and Blackbody Radiation" -- Room 101, Kinard.
March 12	Fri.		Spring holidays begin after last class.
March 12	Fri.		ACC Basketball Semi-Finals -- Greensboro, N.C.
March 13	Sat.		ACC Basketball Finals - Greensboro, N.C.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 15

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

March 15, 1971

UNIVERSITY RECEIVES \$238,150 GRANT FROM SELF FOUNDATION

The University's College of Engineering has been awarded a \$238,150 grant from the Greenwood-based Self Foundation to support development projects for three unique "classrooms for the future."

The three-part grant provides for these programs, already in progress:

A computer-assisted instruction classroom designed to replace traditional chalk-and-blackboard instruction with powerful computer and television teaching methods.

A program linking 15 area high schools through telephone lines to a special computer on the campus, giving students and teachers direct access to the computer's extraordinary resources and capabilities.

A laboratory to teach college students principles of "systems engineering," a broad analytical scientific approach to solving society's complex major problems.

MOORE NAMED FORT HILL'S 'MAN OF THE YEAR'

George M. Moore, associate director of alumni relations, was named "Man of the Year" by the Fort Hill Clemson Club at its annual ladies night banquet at the Clemson House. A 1958 graduate of the University, Moore is completing his 12th year on the staff of alumni relations. Lt. Gov. Earle Morris Jr. was guest speaker at the event. New officers of the Fort Hill club are Millard B. (Speck) Farrar, president; William C. Laffoday, vice president; Moore, secretary-treasurer; and Don Fowler, program chairman.

GEOLOGIST TO SPEAK MARCH 30

Dr. Ronald W. Stingelin, staff geologist and manager of the environmental sciences branch of HPB-Singer Inc. in State College, Pa., will speak at a public lecture at 7:30 p.m. in Lowry Hall Auditorium Tuesday, March 30. Hosted by the Department of Civil Engineering, the program is funded by the National Science Foundation and the American Society of Photogrammetry. Dr. Stingelin will discuss the history and state of the art of using infrared aerial photography and imagery for such things as ecological, water resources, land use and geological studies.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 17, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:35 p.m. in the Student Government Conference Room.

The following members were present: Chairman Robert Behling, M. W. Jutras, E. H. McCarter, B. J. Prochaska, M. N. Lomax, Diane Kerr, Larry Kemmerlin, George Moore. General A. W. Rigsby and Dr. John Idol were absent.

ACTION: The minutes of the meeting of February 10, were approved as distributed.

Dr. Prochaska reported for the AFSC subcommittee appointed to study the question of establishing a University Senate. The following findings and recommendations were presented:

A body consisting of representatives of the administration, faculty and students already exists on campus. This Council, the Administration-Faculty-Student Council (AFSC), reports directly to the President of the University and has equal voting representation from the three members of the University community.

The AFSC has as its principal responsibility the consideration of areas of common concern and mutual interest for the betterment of the University community. (Paraphrased from a memorandum to the AFSC from Dr. R. C. Edwards dated Oct. 6, 1970.) This committee has accepted its responsibility of providing a means of communication among and between the three parties concerned, as attested to by the minutes of the Council. On the other hand, since many problems are not of mutual concern to all members of the University, it appears desirable to retain the Faculty and Student Senates as separate organizations.

The Council consists of nine voting members chosen by and from the respective areas and one non-voting ex-officio member, the Vice President for Executive Affairs. Because of its size, the Council is able to study and discuss matters, efficiently. The creation of another forum at this level would be adding to the bureaucratic structure and would duplicate the efforts of the AFSC.

The operation and organization of the AFSC could be improved. In doing so, its effectiveness could be increased and it could serve the University community to a greater extent.

The subcommittee therefore recommends:

1. That a separate organization called the "University Senate" not be formed.
2. That communication between the Student Senate and Faculty Senate be improved by such means as: (1) meetings between the respective officers, and/or (2) meetings between committee chairmen of the appropriate and respective bodies, and/or (3) exchange of approved minutes of the two bodies, etc.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 17, 1971 (Continued)

3. That careful consideration be given to the selection of representatives to the AFSC.
4. That the representatives of the AFSC for the coming academic year be selected at the end of the preceeding year after the Faculty Senate elections in April.
5. That an organizational meeting of the AFSC be called by the President of Clemson University immediately after the representatives have been selected for the coming academic year.
6. That the role of the AFSC, as an advisory council to the President, be reaffirmed and strengthened by the President of Clemson University.

ACTION: The Council unanimously adopted the subcommittee report and recommendations, and recommends them to the President of the University.
(Motion by Dr. Prochaska)

Chairman Behling reported on the status of a recommendation by the previous AFSC for appointment of representative faculty and students, by the faculty and student senates respectively, to membership on the University Board's various working committees. Some decision on this recommendation is forthcoming and a final report should be possible within the next few weeks.

Discussion continued on the University Union/Fike Field House/Stadium Road facility. Chairman Behling appointed M. W. Jutras (Chairman), Larry Kemmerlin and E. H. McCarter to a subcommittee to formulate a position statement regarding these buildings and a recommendation of priority for proceeding to construction.

Mr. McCarter in exploring further the possibility of some source of additional funding for these buildings reported that the Board of Trustees recently approved a \$3 million (\$2.8 million net) bond issue for campus improvements, renovations, etc. There is no indication any appreciable bonding capacity in this category could be realized in the next year.

Mr. Kemmerlin told the Council that the Department of Services had given up any thoughts of incorporating their operation this year. There is some indication this approach may be considered further next year.

Agenda items for next week include (1) a report by the subcommittee appointed today, (2) university memberships in the ACC and (3) legal aid for students and employees.

There being no further business the Council adjourned at 2:35 p.m.

GRADUATE COUNCIL MEETING, FEBRUARY 12, 1971

The Graduate Council met in Tillman Hall, Room 21, on February 12 at 3:45 p.m. All members of the Council were present for the meeting.

The minutes of the Graduate Council meeting of Jan. 15 were approved. However, Dr. Riggs moved that the policy statement in the January minutes regarding Research in Absentia be repealed and that the report be returned to the subcommittee on Research in Absentia for further study. The motion was seconded by Dr. Allen and was approved by the Council.

A committee, chaired by Dr. Allen, on course loads for graduate students reported that the upper limits on graduate student loads as set forth in the 1969-1970 Record of the Graduate School are satisfactory and recommended that the minimum loads for full-time graduate students in residence should be six hours per semester in regular session and three hours per summer session. Dr. Allen moved that the report be approved as submitted. Dr. Graben seconded the motion. The Council voted to temporarily table the report to be discussed further.

Dean Schwartz approved the following requests regarding graduate courses:

- English 622 - to divide English 623 and 624 into a three semester sequence
- English 623 - to divide English 623 and 624 into a three semester sequence
- English 624 - to divide English 623 and 624 into a three semester sequence
- English 627 - Revision of English 627

The following new graduate courses were approved:

- English 629 - Nineteenth Century Prose
- English 652 - Adolescent Literature (approved with the condition that the undergraduate equivalent be at the 400 level, subsequently withdrawn by Dean H. M. Cox 2/23/71)
- Agricultural Economics 805 - Seminar in Marine Resources Management and Policy
- Bioengineering 871 - Bioelectric Phenomena
- Materials Engineering 608 - Principles of Polymer Science I
- Materials Engineering 609 - Principles of Polymer Science II

Mr. Hodges moved that Economics 831, Seminar in Urban Development Economics, be considered at the next meeting. The motion was seconded by Dr. Wolf and approved by the Council. Also, a memorandum from Dean Landrith regarding residence requirements for the Master of Education degree was referred to subcommittee.

Dean Schwartz noted that Professor Dean's memorandum on language courses will be added to the March agenda. The meeting was then adjourned; no date was scheduled for the next Graduate Council meeting.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 24, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:35 p.m. in the Student Government Conference Room.

The following members were present: Chairman Robert Behling, M. W. Jutras, Diane Kerr, John Idol, A. W. Rigsby, M. N. Lomax, Larry Kemmerlin, Secretary George Moore. Absent: B. J. Prochaska and E. H. McCarter.

ACTION: The minutes of the meeting of Feb. 17 were approved as distributed.

General Rigsby advised the Council of a letter from Dean McClure to Dean Hurst regarding the Council minutes of January 22, 1971, specifically Mr. Kemmerlin's motion on the subject of allocation/reallocation of funds for a University Union. General Rigsby was asked to advise Dean McClure that the motion did not receive a second therefore was not considered further.

Chairman Behling read to the Council correspondence from President Edwards expressing his consonance with the Council's resolution of Feb. 17 relative to a University Senate.

President Edwards also asked the Council to recommend the number of students that should serve with the working committees of the Board of Trustees. It was the consensus of the Council that at least one student be invited to meet with the committees.

Dr. Jutras reported for the subcommittee appointed to study priorities for the University Union/Fike Field House Renovation/Stadium Road facility complex. The following recommendations were presented:

1. Since it is generally felt by students, faculty, and staff that presently the greatest need exists for recreational facilities, the renovation of Fike Field House should be given first priority, and the plan identified as Phase I should be implemented as soon as possible.
The first priority item will benefit the greatest number of University personnel, overall.
2. Since the administration's request for state-appropriated funds was primarily based upon the need for a Student Union facility, limiting the possibility of obtaining additional funds from the legislature for this purpose, and

Since renovation of Fike Field House will leave inadequate funds for more than one additional building, and

Since a Student Union Building has been in the University's plans for several years and repeated delays have convinced the students that the University's veracity on this matter is questionable.

Then a Union Building should be given second priority (See also #4, below)

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 24, 1971 (Continued)

This second priority item will benefit the second largest number of University personnel, overall.

3. Because of the renovation of the administrative wing and of the Little Gym, presently identified as Phase II of the Fike Renovation Plan, and the construction of the Stadium Road Facility will take a good portion of the funds remaining after completion of Phase I, and leave insufficient funds for the University Union Building, and

Because we feel that a request for funds from the legislature for such a facility will stand on its own merits (unlike such a request for completion of a Union Building), and

Because the students, faculty, staff and Athletic Department personnel can all share Fike Field House for a short period of time with a limited degree of discomfort and inconvenience to all concerned while implementation of Phase I takes place,

Phase II of the Fike Renovation Plan and the Stadium Road Facility should receive third priority, particularly in view of the fact that it includes an expensive facade which appears to add little to the project.

This third priority item benefits fewer people in the University community, overall, than do the first and second priority items.

4. As a possible lower cost alternative to constructing an entirely new facility for use as a Union Building, the University should look carefully at the possibility of renovating, in descending order of apparent potential, the following structures:
 - a. The Quadrangle (Student Center), incorporating as part of a Union Building the presently existing University Bookstore, University Post Office, and Cafeteria. The Student Center would be more central and would incorporate more student-oriented facilities (thus attracting students) than the proposed facility to be erected across from the Library. Also, this would beautify, we hope, an ugly building complex.
 - b. Clemson House. With the intended closing of the Tiger Tavern due to financial exigencies, and the recurring review of services provided by the Hotel, a possible alternate use could be as a Union Building. Meeting rooms, kitchen facilities, dining rooms, parking, offices, lounges, and guest rooms presently exist. Incorporation of additional facilities (see item 5, below) may be feasible with limited renovations required. Two handicaps are the lack of centrality, and the need to cross a major thoroughfare for access by pedestrians.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, FEBRUARY 24, 1971 (Continued)

Through renovation, either of these provide superior facilities to supplement the Fike Recreation Center, and will probably provide more such facilities at a lower cost than the proposed new building.

5. The University Union Building should provide, within budgetary limits, both lounging and sports-hobby facilities to supplement those to be incorporated into Fike Recreation Center and to supplement other facilities scattered over the campus. Such facilities might include: bowling alleys; ping-pong tables; billiard tables; card tables; meeting rooms; lockers and lounges for studying, relaxing, reading, etc., particularly for our increasing number of commuters; arts and crafts rooms; cafeteria; guest rooms for visiting teams, performers, and other University guests; and other facilities normally envisioned when one refers to a Student Union Building.

Thus, its use as an office building, except for the Union Director and his staff, should be severely restricted.

ACTION: The Council unanimously adopted the subcommittee report and recommendations, and recommends them to the President of the University.
(Motion by Dr. Jutras)

The Council adjourned at 2:30 p.m.

AWARDS SELECTION POLICIES AND PROCEDURES

Awards selection policies and procedures are recorded as follows:

A University award is a prize given to recognize achievement in a particular area. Clemson University awards are granted pursuant to the following policies and procedures:

1. Responsibility for the coordination of the selection of awards recipients is vested in the Chairman of the Honors and Awards Committee.
2. University awards shall be only those fiscally supported by funds in possession of the University. University monetary awards shall be processed through the Office of Accounting. University monetary awards shall not exceed two hundred dollars (\$200.00). Recipients of these awards will be selected by the Honors and Awards Committee, following, insofar as possible, recommendations of the various deans and department heads.
3. University awards shall be listed in the University Record and Announcements, the Honors and Awards Day program, and other official publications.

AWARDS SELECTION POLICIES AND PROCEDURES (Continued)

4. Donor-selected awards shall not be considered as University awards. The granting and transacting of such awards shall be effected directly between the donor, or his agent, and the recipient. Such awards shall not be listed in the University Record and Announcements. Funds to support monetary donor-selected awards may be transmitted by the donor directly to the recipient, or alternatively, to the Office of Accounting for credit to the account of the recipient.

5. Agreements for University awards shall be signed by the Vice President for Business and Finance on recommendation of the dean of the appropriate college or school and the Chairman of the Honors and Awards Committee.

UNIVERSITY LIBRARY COMMITTEE MEETING, FEBRUARY 2, 1971

Present: D. R. LaTorre (Chairman), Opal Hipps, Mary Lou Hockenberry, Ralph Knowland, R. E. Schoenike, J. M. Wannamaker, H. H. Wilson, J. W. Gordon Gourlay (Secretary).

The minutes of the meeting of January 5 were approved.

Dr. LaTorre reported:

- (a) that he had appointed H. H. Wilson and J. M. Wannamaker to serve on the Ad Hoc Committee, with Ralph Knowland as chairman, to investigate the feasibility of acquiring, cataloging, and storing audio-visual materials in the main library.
- (b) that he has received a memorandum from Dr. Calhoun stating that his schedule this semester precluded his meeting with the committee at the time scheduled. The committee was of the opinion that the day and the time of the meeting should remain as planned. Dr. LaTorre said that he would ask for a temporary replacement for Dr. Calhoun.

Dr. LaTorre distributed a proposed resolution to be presented to the Faculty Senate concerning membership of the professional librarians on the Faculty Senate. The resolution, which was unanimously approved, reads as follows:

Whereas Article I, The Faculty, Section 1, of the Constitution of the Faculty reads as follows:

"Section 1. Membership.

The faculty of Clemson University shall consist of the President of the University, the Dean of the University, the deans and directors of the colleges and schools, professional librarians, the teaching and research faculty with rank of professor, associate professor, assistant professor, or instructor and such other members as may be duly elected as provided for in the By-Laws."

UNIVERSITY LIBRARY COMMITTEE MEETING, FEBRUARY 2, 1971 (Continued)

Whereas Article II, The Faculty Senate, Section 2, of the Constitution of the Faculty reads as follows:

"Section 2. Membership.

The Faculty Senate shall consist of those members elected by the faculties of the colleges and schools as provided for in the By-Laws."

Whereas the first sentence of Article II, The Faculty Senate, Section 1, of the By-Laws of the Constitution reads as follows:

"Section 1. Membership.

Members of the Faculty Senate shall be elected by the members of the faculty, voting by colleges or schools, for a term of three years."

Whereas no provision is made in the By-Laws for membership in the Faculty Senate by the professional librarians; and

Whereas the professional librarians, individually and as a group, possess credentials of the highest caliber; are in daily and direct contact with the faculty, undergraduate and graduate students of the University; perform a vital teaching function within the University, last year conducting ninety-six (96) hours of formal class instruction; as members of the faculty, are governed by the policies, rules, and procedures set forth in the faculty manual; and as faculty members are entitled to all privileges granted by the Constitution of the Faculty, except, currently, for membership in the Faculty Senate;

Be it therefore resolved that:

The Faculty Senate recommends that Article II, Section 1, of the By-Laws of the Constitution of the Faculty be amended by the addition of the following sentence immediately after the first sentence of Article II, Section 1, of the By-Laws.

"For purposes of allocation of Senate seats and all other provisions of this Article, the professional librarians will be considered as faculty representing a school."

COLLEGE OF ENGINEERING

L. G. Rich (Dean) was a member of a site visit team for the Environmental Protection Agency to the University of Kansas, Lawrence, Kansas on Feb. 8 and to the University of Hawaii, Honolulu, Hawaii on Feb. 10. Dean Rich was also a member of an accrediting team for the Engineers Council for Professional Development to the College of Engineering, University of Florida, Gainesville, on Mar. 3-5.

CHEMISTRY AND GEOLOGY

J. W. Huffman (Prof) has received a grant of \$1,000 from Merck, Sharp and Dohme for research in organic synthesis.

The Department has received a grant of \$2,500 from the DuPont Company to support the program in chemistry.

Faculty members have recently presented scientific lectures at several colleges:

J. L. von Rosenberg (Assoc Prof), Middle Tennessee State College;
J. R. Bacon (Asst Prof), South Carolina State College;
H. G. Spencer (Prof), Western Carolina University; and
G. L. Powell (Asst Prof), Georgia State College.

Faculty members have also visited chemistry and geology classes and clubs at nearby high schools. Visiting professors include: J. H. Hobson, (Prof), J. F. Allen (Assoc Prof), P. K. Birkhead (Assoc Prof), R. D. Hatcher (Assoc Prof), and J. R. Bacon (Asst Prof).

DIVISION OF INTERDISCIPLINARY STUDIES

S. F. Hulbert (Assoc Dean) and T. L. Bridges (Med Stu, Medical University of S. C.) published a paper entitled "Materials of Construction for Cardio-vascular Surgical Implants" in Yale Scientific, Vol. 45, pp. 2-7 (1970).

S. F. Hulbert, C. C. Fain (Assoc Prof) and M. J. Eitel (Assoc Prof) presented a paper "Water Disposable Glass Packaging Container," at the 68th National Meeting of the American Institute of Chemical Engineers in Houston, Texas, Mar. 2.

A Postdoctoral Fellowship has been awarded to Ralph B. Leonard (1970, Ph.D. University of Calif. at Berkeley) by the National Institute of Arthritic and Metabolic Diseases to study at Clemson University with S. F. Hulbert.

C. William Hall (Dir of Bioengineering), Southwest Research Institute will present a seminar entitled, "The Present Status of the Artificial Heart Program," at 7:30 p.m., March 30, in the Chemical Engineering Auditorium.

FORESTRY

Philip C. Wakeley, who is retired from U. S. Forest Service, will speak at the University as part of the Visiting Scientist Program sponsored by the National Science Foundation and the Society of American Foresters. On Mar. 23 at 4:00 p.m. he will conduct a graduate seminar The Personal and Professional Challenge of Research in Room A-101, P & AS. On Mar. 24, at 10:00 a.m. he will lecture on the regeneration of the southern pines and at 2:00 p.m. he will speak on the growth of southern pine plantations. The latter two lectures will be held in the auditorium of the P & AS building.

MATHEMATICS

J. V. Brawley, Jr. (Assoc Prof) representing the Mathematical Association of America and Clemson University visited Florida Southern College on Feb. 18 and 19 and delivered "Can You Count?" and "Elementary Algebraic Cryptography." The MAA visiting lecturer series is funded by the National Science Foundation.

SOCIAL SCIENCES

Richard L. Saunders (Asst Prof) received the Doctor of Philosophy degree from the University of Illinois at the February convocation.

B. Caffrey (Assoc Prof) and two psychology students, Judith D. Jones and Barbara R. Hinkle, have an article entitled: "Variability in reaction times of normal and educable mentally retarded children" in the current issue of the journal Perceptual and Motor Skills. Dr. Caffrey also has published a paper entitled "Effect of Saturday Classes on Grades and Attendance" with Tom Klugh (U.S.A.F.) in the current issue of the journal Psychological Reports.

CALENDAR OF CAMPUS EVENTS

March 15	Mon.	Baseball - at Mississippi.
March 16	Tues.	Baseball - at Mississippi.
March 16	Tues. 4:00 p.m.	Food Science Seminar: Dr. Marvi Moore (Frito-Lay Inc., Dallas, Texas) will speak on "Research in the Snack Food Industry" - P&AS Building, Rm. F-150.
March 17	Wed.	Baseball - at Mississippi.
March 18	Thurs. 3:00 p.m.	Agricultural Economics & Rural Sociology Seminar Series - M. Mason Gaffney, Resources for the Future, Inc., "Reconciling Full Employment and Environmental Quality."
March 18	Thurs.	Baseball - at Mississippi State.
March 19	Fri.	Baseball - at Mississippi State.
March 20	Sat.	Baseball - at Mississippi State.
March 22	Mon.	Classes resume.
March 23	Tues.	Clemson Area Continuing Education Classes.
March 23	Tues.	Clemson Choir - Daniel High School Auditorium.
March 24	Wed.	Baseball - Ohio at Clemson.
March 24	Wed. 8:00 p.m.	University Lecture Series - School of Nursing's Presentation --Dr. Margaret Shetland, Dean, Wayne State College of Nursing, Detroit, Michigan - Daniel Aud.

CALENDAR OF CAMPUS EVENTS Continued

March 25-	Thurs.-	8:00 p.m.	Clemson Players - Daniel Hall Theatre.
March 27	Sat.		
March 25	Thurs.	4:00 p.m.	Physics Colloquium - Dr. Burt V. Bronk, Biology Department, Brookhaven National Laboratory, will speak on "Cell Proliferation" -- Room 101, Kinard Laboratory of Physics.
March 25	Thurs.		Baseball - Ohio at Clemson.
March 27-	Sat.-		Sponsored by the Clemson Architectural Foundation --
April 25	Sun.		Photography and the City - City Planning -- Organized by Charles & Ray Eames - Rudolph Lee Gallery.
March 27	Sat.		Baseball - University of North Carolina at Clemson.
March 28	Sun.		Baseball - N.C. State at Clemson.
March 30	Tues.		Clemson Area Continuing Education Classes.
March 30	Tues.	7:30 p.m.	Civil Engineering Lecture - Dr. Ronald W. Stingelin, National Science Foundation, American Society of Photogrammetry.
March 30	Tues.	7:30 p.m.	Dr. C. William Hall (Director of Bioengineering) Southwest Research Institute will present a seminar - "The Present Status of the Artificial Heart Program" Chemical Engineering Auditorium.

CLEMSON

MAR 30 1971

NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 16

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

April 1, 1971

LOYALTY FUND PASSES \$2 MILLION

The fellow who said, "The first million is the hardest" must have known what he was talking about. The alumni office has just received the check to the Clemson Alumni Loyalty Fund that pushed the income of the fund past the two million dollar mark since it was launched in 1956.

It took 10 years to reach the first million, five year to reach the second. The Loyalty Fund supports the University educational program through scholarships, professorships, faculty development and research, student activities, library acquisitions and endowment.

GIFTS AND GRANTS

Grants received by the University include these from the National Science Foundation:

-- \$83,052 to continue 15 graduate students' traineeships for 12 months, beginning next fall, and for three traineeships for graduate teaching assistants this summer.

-- \$23,000 to Dr. James G. Goree, Department of Engineering Mechanics, for a mathematical study of failure in fiber reinforced metallic or nonmetallic materials.

-- \$49,166 to support a summer institute in mathematics for secondary school teachers.

-- \$12,861 to support the University's eighth annual Student Science Training Program in the Biological Sciences.

Other grants include:

-- \$7,500 from E.I. DuPont De Nemours & Co. under its aid to education program, with the departments of Chemical Engineering, Chemistry and Mechanical Engineering each receiving \$2,500.

-- \$5,000 from the S.C. Heart Association for research on clotting time of physiological fluids. (Continued on next page.)

GIFTS AND GRANTS Continued

-- \$1,000 from the Dry Color Manufacturers' Association (Summit, N.J.) for the Color Science Program of the College of Industrial Management and Textile Science.

-- \$44,000 to Dr. Robert H. Barker, College of Industrial Management and Textile Science, from Cotton Incorporated (Raleigh, N.C.) to continue his research of fabric flammability. The new grant increases to \$96,800 the total amount which the organization has awarded for the project.

BARUCH RESEARCH INSTITUTE PRESENTS SPEAKER

Dr. Arthur D. Hasler, professor of zoology at the University of Wisconsin, will speak at the University April 12 as a lecturer for The Belle W. Baruch Research Institute of Clemson University. He will present a seminar at 4 p.m. in the Plant and Animal Science building auditorium on the topic, "Guideposts for Migrating Fishes." Besides his Clemson lecture, Dr. Hasler will speak at six other colleges and universities throughout the state under the auspices of The Belle W. Baruch Research Institute.

ALUMNI ASSOCIATION HONORS 5 GRADUATES

Five Clemson alumni, all S.C. natives, have won the Clemson Alumni Association's highest honor, 1971 Distinguished Alumni awards. They are Gerald R. Tyler (Class of 1917) of Arlington, Va., retired architect and Army colonel; Deems Haltiwanger ('19) Columbia, retired president of Richland Shale Products Co.; Maj. Gen. William S. Coleman ('39), Columbia, commanding general at Fort Jackson; Dr. John R. Sosnowski ('42), Charleston, physician and professor at the Medical University of S.C.; and Rembert R. Stokes ('53), Middletown, N.J., communications engineer-inventor for Bell Telephone Laboratories. The awards will be presented at the annual Alumni Banquet here Saturday, June 12.

ALUMNI ELECT 1971 PRESIDENT

T.C. (Buck) Breazeale (Class of 1942) has been elected 1971 president of the more than 25,000 member Clemson Alumni Association. Breazeale, who lives in Knoxville, Tenn., said in a recent interview: "American higher education is going to suffer if college and university alumni fail to conquer a prevailing attitude of status quo complacency in their ranks. Alumni organizations throughout the nation can play a major role in bolstering alumni financial support by becoming more effective channels of communication between their institutions and alumni."

"ENGINEERING AT CLEMSON" SCHEDULED

The University will host a select group of high school juniors from throughout South Carolina on Thursday, April 8th, for a conference on "Engineering at Clemson." The conference will explore what engineering is, what engineers do, and what kinds of engineering educational opportunities and facilities are available at Clemson. Participants will tour laboratories and have a chance to talk informally with Clemson engineering students and faculty members.

CREDIT UNION LOWERS INTEREST RATE

The State Employees' Association Credit Union has lowered the loan interest rate on automobiles and collateral or secured loans from one per cent per month to three-fourths of one per cent per month on the unpaid balance effective Mar. 1. The new rate is equivalent to 4.88 per cent annual interest as compared to the previous 6.5 per cent on the original amount of the loan. The actual interest would be 9 per cent as compared to the previous 12 per cent rate. The rate on signature loans up to \$500 remains the same, one per cent per month on the unpaid balance.

CLEMSON UNIVERSITY SAMPLING SYSTEM

Dr. K.T. Wallenius of the Mathematics Department has developed a sampling system which may be used by persons who wish to conduct surveys involving University matters. Use of the survey system will produce more accurate and dependable evaluations of opinions than those that have been conducted previously.

The University Executive officers recognize the value of such a sampling system but stress that the system must be used with discretion in regard to the validity and cost of its use. As a result, this system will be available for legitimate faculty or student opinion sampling subject to the approval of the Dean of the University and also subject to payment by the agency for the expense of the survey, including computer and programming time.

To implement his responsibilities in this area, the Dean of the University will appoint an Advisory Committee consisting of members of the administration, faculty, and student body. Initially, the committee will prepare a manual which will explain the function of the sampling system and outline procedures that interested individuals must pursue in order to make use of this system. Following this, the committee will meet at intervals in order to advise the Dean of the University in carrying out the guidelines for the use of the sampling system.

GENERAL FACULTY MEETING

A meeting of the General Faculty has been set for 10:00 a.m. on Thursday morning, May 6, 1971, in the auditorium of Tillman Hall.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 9, 1971

The meeting was called to order at 4:19, and the minutes of the special meeting of February 2 were approved as distributed. President Prochaska announced the second special meeting, at 4:15 on February 16, to finish the business of the faculty manual revision.

President Prochaska reported receipt of a letter from Dean Hurst concerning the Senate's resolution on a faculty voice in the assignment of land and facilities, already in use, to a new purpose. Dean Hurst assured the Senate that the allocation of the Clemson "bottom lands," the question that gave rise to the resolution, was part of the overall master plan for development of the University. He added that whenever reallocation of land and facilities concerned academic matters, the faculty would be consulted.

Since January 12, President Prochaska reported, he has represented the faculty and the Senate at meetings of the Vending Machine Committee; the Educational Council; the Board of Trustees' committee meeting; and the meeting of the Board of Trustees itself. He reviewed briefly the business accomplished at the latter, including the affirmation of new names chosen for buildings, for example renaming Fike Field House to be Fike Recreation Center and renaming the YMCA building in Mr. Holtzendorf's honor; the new honorary degree policy, which was in part a response to the Senate's resolution on that problem; the effort by the University to act as a repository for the letters and papers of the late Honorable L. Mendel Rivers; and authorization to contract with A.R.A. Slater to take over the catering for the Clemson House, a plan which includes the closing of the Tiger Tavern, except to special parties. President Prochaska also attended a meeting of the Tri-Level Committee, where the subjects of discussion were the University Senate idea and details of the University Union plans.

Continuing the Faculty Senate's concern with the University Union project, President Prochaska brought to the group an architect's suggested plans and a water color of the finished building, currently proposed for Fike Recreation Center, both furnished for the Senate by the Director of Development, Mr. Stanley G. Nicholas. Mr. Nicholas also furnished the comparative figures on renovation versus a wholly new building. Renovation, rather than a new building, seems the certain course of action now, since a date of May 1 has been set on which to advertise for bids for the work which has been assigned a tentative completion date of August 1, 1972. Professor H. D. Adams, seconded by Professor B. C. Caffrey, moved the Senate thank Mr. Nicholas for his information. The motion read:

President Prochaska is directed to express the Senate's appreciation for the response of Mr. Stanley Nicholas to their request for information and for his cooperation in gathering the material for today's presentation.

The motion passed unanimously.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 9, 1971 (Continued)

President Prochaska reported on the meeting of the Athletic Council he attended on February 4 where it was determined that ticket prices for Clemson games will be raised for the coming year, in line with action throughout the ACC. Faculty and staff will receive the same discounts as last year on the admission and S. C. State tax portion of the ticket, but will pay the full bond "capital improvement" fee; thus faculty tickets will cost approximately \$6 more than in 1970. In response to faculty inquiries, President Prochaska reported that he had determined through private conversations with Athletic Department administrators, that at present there is no procedure by which faculty and staff seats on the home side (South Stands) may be up graded. However, good seats are available on the visiting side (North Stands).

For the Welfare Committee, Professor J. C. Mullins presented a motion, seconded by Professor J. L. Arbena, to establish a student grievance procedure paralleling the grievance procedures available to the faculty, through the mechanism of a committee whose membership is specifically spelled out in the regulation. In discussion it was pointed out that many students with complaints feel that they have nowhere to go with their problems, that no one will listen or act in their behalf; many are afraid to go to department heads, lest regardless of the justice of the complaint, the department head would feel duty bound to defend his faculty against a student protest. In opposition, there was some concern that such a committee would find itself swamped with work, dealing with the protests of every student who failed a course; teachers might spend more time justifying poor grades before a grievance committee than they could spare from course preparation and paper grading. It was moved and seconded that the motion be tabled, with the understanding that it would be recalled at the next meeting after the Senate had time to think the matter through and to consult individual colleagues. The motion to table passed unanimously.

For the Admissions and Scholarship Committee, Professor J. L. Idol reported the committee's agreement that the Senate's resolutions to delete passages from the catalogue concerning re-examination for graduating seniors should be implemented starting with graduation in December, 1971. This action was in response to Dean Hurst's request for a date on which such measures would go into effect.

Professor Idol also reported on the committee's discussions concerning bills from the Student Senate. In response to the students' request for expansion of the Pass-Fail system, the committee suggested waiting to evaluate the results of the present, limited Pass-Fail system. It also reported that elsewhere the system seems to be giving serious trouble, and Clemson should not consider expansion until the evidence is in. In response to the Student Senate's resolution asking for abolishment of all class attendance regulations at Clemson, the committee reported that it found such a move not in the best interests of a sound educational program at this time. In response to the Student Senate's resolution that there be a fixed scale of grades for all freshman and sophomore courses (e.g., that 90-100 be an A, 80-89 a B, 70-79 a C, etc.) the committee reported that not only is this academically unsound, considering the variance in disciplines involved, but it is an archaic system, tried and discarded many times over the years elsewhere.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 9, 1971 (Continued)

In response to the Senate's request for reformation of the present erasable F rules to bring them into line with the spirit of the Senate's original recommendation, Professor Idol reported for his committee that their recommendation was that the office of the registrar and all other concerned agencies make these changes, putting them into effect for freshmen entering in the fall semester, 1971.

For the Research Committee, Professor J. C. Fanning stated there was no report, as did Professor H. D. Adams for the Policy Committee. For Ad Hoc Committee A, Professor M. W. Jutras announced a meeting on Thursday, Feb. 11, to take care of some details stemming from the first Senate special meeting.

For Ad Hoc Committee B, Professor R. F. Borgman moved the adoption of his committee's description of the composition and function of University councils and committees, excepting the Developmental Council, Master Plan, and AFSC, which are still under study; this was seconded by Professor H. D. Adams. An amendment on behalf of the Library Committee to add to that description the statement of duties approved by the Board of Trustees in April, 1960, was presented by Professor D. R. LaTorre, seconded by Professor H. D. Adams. The amendment passed unanimously. Since the first two-thirds of the committee's report, with certain editorial changes for clarity and correction of typographical errors, seemed to meet with general approval, while the last section covering standing committees appointed by the President of the University demanded further discussion, it was moved and seconded that the report be voted on in two separate sections. This motion passed unanimously. The question was then called (a vote on the first two sections of the committee report) and, since there was a difference of opinion about the calling of the question, it was put to a vote. 24 favored calling the question at that time, 3 opposed, 1 abstained. The question was called.

The motion to accept the committee's report as amended (the first two sections only) was passed by a vote of 26 to 3 with no abstentions. The approved portion of the report, which takes the form of a recommendation for reorganization of the University's committee structure in some cases, is appended to these minutes.

A motion was introduced by Professor V. S. Hodges, seconded by Professor E. A. Vaughn, to table the last part of Committee B's report, with the understanding that it was to be taken up again at the Senate's March meeting. The motion passed unanimously.

For Ad Hoc Committee C, Professor W. C. Whitten, reporting in the absence of the Committee's chairman Professor B. J. Skelton, explained the committee's actions to date, which included gathering and surveying a history of attempts to reform the graduation exercises in recent years. Committee members had further undertaken a very informal survey of the opinions of their colleagues and found little interest in or enthusiasm for further changes. Therefore, Committee C recommended that none be made at the moment, unless perhaps it were to change the time from hours spanning conventional lunch hour to an hour in the morning or late afternoon, and to recommend collegiate exercises in which MA and Ph.D. candidates could be individually hooded.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 9, 1971 (Continued)

Some dissatisfaction with the recommendation being expressed from the floor, the committee was instructed to carry out an investigation of the results from and disposition of the University-wide survey which had been conducted by a committee on graduation reform last year. Professor W. C. Whitten, seconded by Professor K. Lehotsky, moved that the present graduation and honorary degree policies, as presented to the Senate by his committee in mimeographed form, be printed in the Clemson Newsletter. Professor D. R. LaTorre, seconded by Professor M. W. Jutras, moved to table this motion; the move to table carried by voice vote.

Professor D. R. LaTorre, on behalf of the University Library Committee, moved the adoption of a resolution to amend the By-laws of the Senate's constitution to include direct representation for Clemson's professional librarians on the Senate, allotting them one senator in the apportionment of the total of 35. The motion was seconded by Professor J. L. Idol. Discussion was delayed until the March meeting, when the vote will be taken, as prescribed by the constitution.

For the Admissions and Scholarship Committee, Professor Idol moved, seconded by Professor W. C. Whitten:

The Faculty Senate requests the Office of Admissions and Registration to publish final examination schedules as early as is feasible.

The motion passed unanimously.

The meeting was adjourned at 6:40 p.m.

Absent: B. J. Skelton; G. W. Gray; M. K. Richardson; G. D. Riggs; B. F. Cook.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 16, 1971

A special meeting of the Faculty Senate, the second called for the purpose of considering the proposed revision of the faculty manual, was called to order at 4:20. It was moved and seconded that the reading and approval of the minutes of the meeting of Feb. 9 be dispensed with. President Prochaska then turned the meeting over to Professor M. W. Jutras, chairman of Ad Hoc Committee A.

The first order of business was the approval of minor additions and corrections the committee had voted to clarify wording of the sections of the manual which had been considered at the previous special meeting on Feb. 2. These included a definition of the terms "tenure" and "dismissal."

A motion to include as part of the policy section the portion from the old manual dealing with Clemson's personnel evaluation program was discussed, amended, and eventually tabled, pending Ad Hoc Committee A's investigation of the exact wording of the Board of Trustees' 1955 resolution which directed the institution of this program on an annual basis. The motion will be brought to the floor again with Committee A's report, presumably at the next meeting of the Senate.

MINUTES OF THE MEETING OF THE FACULTY SENATE, FEBRUARY 16, 1971 (Continued)

The remaining portion of the suggested manual, as revised, was presented, discussed, and approved, a section at a time, with the corrections (largely typographical) and additions from the floor. In addition, it was voted to request inclusion in the information section of the manual, which is being rewritten by Dean Hurst's office, a paragraph on housing policy and a copy of the faculty compensation policy now in use by the State Budget and Control Board.

The subject of earlier meetings for the Senate was discussed briefly at the close of this session, but dropped when several Senate members pointed out that their teaching schedules would conflict with a new time.

The meeting was adjourned at 6:07.

Absent: G. R. Gray; M. K. Richardson; G. D. Riggs; B. F. Cook.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

R. K. DeHaven (Asst Prof) will present a seminar entitled "Implications of Changing Market Structure in the Dairy Industry" at 3:00 p.m. in Room 1, Kinard on April 1.

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) co-authored two papers which were presented at the 68th National AIChE meeting in Houston, Texas, Feb. 28 - March 4. "The Determination of Optional Control Systems for Multi-variable Processes by Direct Search - The JASON Design Procedure," with J. I. Elsey. "On-Line Tuning of DDC Loops Using Empirical Optimization - The REFLEX Method," with R. W. Glass

W. B. Barlage (Assoc Prof) and J. A. Caskey (V.P.I.) published a paper entitled, "An Improved Experimental Technique for Determining Dynamic Surface Tension of Water and Surfactant Solutions," in Journal of Colloid and Interface Science, Volume 35, No. 1, p. 46 (1971).

Union Carbide Corporation has renewed its \$5,000 unrestricted grant to the Department of Chemical Engineering.

CHEMISTRY

J. L. von Rosenberg, Jr. (Assoc Prof) presented a technical paper to the Chemistry Department, Middle Tennessee State University, Murfreesboro, Tenn. on Feb. 25.

J. Jacobus (Asst Prof) presented a technical paper before the Biochemistry faculty and graduate students at the Johns Hopkins University, Baltimore, Md. on March 9.

POLICIES REGARDING COMMENCEMENTS AT CLEMSON UNIVERSITY

Following the recommendations of an Ad Hoc Committee, which met during the fall of 1969 and which was chaired by Dr. Harold Cooledge, University Marshal, and a later meeting held in Dean Hurst's office on January 21, 1970, certain policies were established related to the conduct of Commencements at Clemson University. These policies are:

1. That the present practice of holding a commencement exercise three (3) times in the year be continued and that the order and formality of these shall be; August (informal), December (limited formality), May (formal).
2. That until such time as the number of graduates shall make it unadvisable, the President shall continue to personally award each graduate his degree.
3. That the individual hooding of graduates taking the Ph.D. degree is not in the best interest of the total commencement ceremony and should be permanently discontinued.
4. That a "commencement speaker" is not necessary to the proper conducting of any University commencement and that a speaker shall be included on the program of any commencement only if and when the University shall deem it fitting and proper.
5. That the attendance of Faculty members at commencement shall be a matter of personal conscience, with the understanding that attendance at May commencement is seen by the University as a matter of simple duty, and that suitable methods shall be instituted by the Dean of the University whereby the offices of the Registrar and Marshal shall be notified of the probable attendance of Faculty at any given commencement in sufficient time so that the proper ceremonies can be arranged.
6. That the conferring of Emeriti Degrees at May Commencement shall not be considered a fixed policy of the University but that such degrees shall be conferred only if and when the University deems fitting and at such convocations, either regular or special, as the University shall deem proper.

DIVISION OF INTERDISCIPLINARY STUDIES

W. B. Hammer (Asst Prof, Medical College of Ga.), R. G. Topazian (Hd of Oral Surgeyy, Medical College of Ga., C. D. Talbert (Grad Stu) and S. F. Hulbert (Assoc Dean) presented a paper "Augmentation of Deficient Mandibular Alveolar Ridges with Ceramics," at the 49th General Meeting of the International Association for Dental Research in Chicago, Ill. March 20.

S. F. Hulbert, C. C. Fain (Assoc Prof) and M. J. Eitel (Assoc Prof) have received a grant of \$56,482 from the Environmental Protection Agency to continue their research on the Design and Evaluation of a Water Disposable Glass Packaging Container.

ELECTRICAL AND COMPUTER ENGINEERING

B. E. Gilliland (Assoc Prof) has been selected by the American Federation of Information Processing Societies (AFIPS) to referee papers submitted to the Fall Joint Computer Conference to be held in Las Vegas, Nev. and the International AFIPS Conference to be held in Paris, France. Dr. Gilliland will referee papers in the areas of hybrid computer applications, computer process control and computers in education.

L. C. Wilcox (Prof and Hd) will serve as session chairman (Digital Signal Processing) at the Third Annual Southeastern Symposium on Systems Theory. The meeting will be held in Atlanta on Apr. 5-6 in the Space Science and Technology Building on the Georgia Tech Campus.

ENGINEERING MECHANICS

J. G. Goree (Assoc Prof) has been awarded a National Science Foundation grant entitled "Analytical Study of Failure in Composite Materials." The grant is for \$23,300 and will become effective May 16 for a period of approximately one year.

ENVIRONMENTAL SYSTEMS ENGINEERING

Dr. Gerald E. James has joined the department as Asst. Prof. Dr. James received his Ph.D. from Purdue University and was employed by the Shell Development Corporation in Emeryville, Calif., where he was involved in research on interfacing analytical instrumentation with small digital computers.

T. M. Keinath (Asst Prof) presented a seminar entitled "Physicochemical Methods of Wastewater Treatment" to the faculty and students of the Dept. of Civil Engineering, Georgia Institute of Technology, Feb. 23.

Mr. Albert J. Erickson, Chief, Planning Branch, Division of Planning and Interagency Programs, Water Quality Office, Environmental Protection Agency, Washington, D.C., will present a seminar entitled "Effective Basin-Wide Planning for Water Quality Management" on April 15 at 4:00 p.m. in Lee Hall Auditorium.

B. C. Dysart, III (Assoc Prof) presented two seminars for faculty and graduate students in the water resources area recently. At the University of Washington on March 1, the topic was "Water Resource Management and Systems Analysis." On March 4, the topic at Oregon State University was "Regional Water Quality Management - The Utility of Optimal Policies." Informal presentations were made to members of the staff at Battelle Northwest in Richland, Washington, and the Pacific Northwest Water Laboratory in Corvallis, Oregon, on March 2 and 3, respectively.

GEOLOGY

R. D. Hatcher (Assoc Prof) has been appointed to a U. S. Forest Service Environmental Impact Study Team to study possible environmental effects of proposed roads in western North Carolina and eastern Tennessee.

INDUSTRIAL EDUCATION

Under the direction of J. Page Crouch (Asst Prof) a Graphic Arts Photography Workshop was held Feb. 25 through Feb. 28 in the Graphic Arts facilities of the Industrial Education Dept. for the Vocational Graphic Communications teachers of South Carolina. Nine teachers engaged in technical operations from basic processes through full color reproduction.

MATHEMATICS

K. T. Wallenius (Assoc Prof) addressed the Sigma Xi Club of Florida Presbyterian College and their Mathematics Dept. on March 2 and 3, respectively, under the auspices of the Visiting Lecturer Program in Statistics, a program funded by the National Science Foundation and jointly sponsored by the American Statistical Association, the Biometric Society, and the Institute of Mathematical Statistics.

John Kenelly (Prof and Hd) delivered an invited address at Valdosta State College to the Dept. of Mathematics on March 4.

Nick M. Stavrakas (Grad Stu), William R. Hare (Assoc Prof) and J. W. Kenelly authored a paper entitled, "Two Cells with N Points of Local Nonconvexity," which appeared in the Feb. issue of the Proceedings, American Mathematical Society.

Joel V. Brawley, Jr. (Assoc Prof), a Visiting Lecturer from the Mathematics Association of America, visited the University of North Carolina at Charlotte on March 4 and presented talks on "The Gambler's Ruin" and "Elementary Algebraic Cryptography."

The Dept. of Mathematics has been awarded a Grant from the National Science Foundation to conduct Advanced Seminars in Probability and Statistics during the summer of 1971. These seminars will be under the direction of K. T. Wallenius (Assoc Prof). Seminar speakers will be Prof. Patrick Billingsley, University of Chicago and Prof. Herman Chernoff, Stanford University, both internationally known research scholars. Stipends and travel funds will be provided for about 25 participants.

NURSING

Marilyn B. Chassie, MSN., R.N., Lecturer, School of Nursing and Clinical Nurse Specialist in Maternal-Newborn Care at the Greenville General Hospital will speak on "Quality of Nursing Care" at a conference on "Nursing Management in Obstetrical Crisis" which is being sponsored by the South Carolina Nurses' Association on March 30 in Columbia. The meeting will be held in the Simons Building, State Board of Health Auditorium.

MICROBIOLOGY SECTION

Ann W. Baxter (Asst Prof) presented a seminar at Benedict College, Columbia, on Oct. 13, 1970. The topic was "Studies in the Physiology of a Streptococcus." Dr. Baxter also presented a paper at a joint meeting of the South Carolina and Southeastern Branches of the American Society for Microbiology in Augusta, Ga., Nov. 7, entitled "Sensitivity of Streptococcal Cells and Protoplasts to Copper and Zinc Ions." Dr. Baxter has been elected Branch Councilor of the S. C. Branch of the American Society for Microbiology.

R. K. Guthrie (Prof and Dir of Biology Div) was senior author of two papers that were recently published: "Failure of Hapten-Autologous Protein Antigens to Produce Arthus Reactions in Rabbits," Texas Journal of Science (1970); "Passive Transfer of Hypersensitivity by Cells Enclosed in Membrane Chambers," Review of Respiratory Disease, (1970).

M. J. B. Paynter and D. L. Ewert (Grad Stu) were authors of "An Ecological Study of the Bacteriophage Component of Activated Sludge," a paper that was read by Dr. J. Baldwin (Dept. of Microbiology, University of Ga.) at the Tenth International Congress for Microbiology, held in Mexico City, August, 1970.

M. J. B. Paynter (Assoc Prof and Chairman) presented a paper, "The Effect of Microbial Interactions on Performance of Waste Treatment Processes," at the 160th National Meeting of the American Chemical Society, Chicago, Sept. 1970. Dr. H. R. Bungay, III (Prof of Bioengineering) was co-author.

M. J. B. Paynter and S. R. Elsdon (Dir of Agricultural Research Council Food Research Institute, Great Britain) have published an article "Mechanism of Propionate Formation by Selenomonas ruminantium, a Rumen Micro-organism," Journal of General Microbiology (1970).

M. J. B. Paynter and H. R. Bungay, III have published the following two papers in Biotechnology and Bioengineering, (1970): "Responses in Continuous Cultures of Lysogenic Escherichia coli Following Induction," and "Capsular Protection Against Virulent Coliphage Infection."

Dr. Paynter has been elected President of the South Carolina Branch of the American Society for Microbiology. Dr. Paynter presented a talk "Ecology in the Microbial World," to Rock Hill High School Students, Oct. 19, 1970.

PLANT PATHOLOGY AND PHYSIOLOGY

Dr. C. W. Kuhn from the Dept. of Plant Pathology and Genetics, University of Ga. will present a seminar on "Mechanism of in vivo Inactivation of Plant Viruses," Apr. 14 at 12:15 p.m. in Room 222, Long Hall. The seminar is sponsored by the Dept. of Plant Pathology and Physiology and is open to all interested persons. Dr. Kuhn has worked with the University of Ga. since receiving his Ph.D. in 1960, first at Experiment, Ga., where he was head of the Plant Pathology Dept. for 2 years. He has been at Athens since 1968. His primary research activity concerns plant virology with special emphasis on in vivo inactivation of plant viruses.

POULTRY SCIENCE

The Poultry Science Dept. is sponsoring an "Egg and Art Exhibition," April 9-11, in the Food Industries Auditorium. Artists of all ages are invited to participate. Cash prizes will be offered in graphic and 3-dimensional art for junior, intermediate and senior age groups. Rules and regulations, entry blanks and further information are available from the Poultry Science Dept.

The 15th Annual Poultry Health and Management Short Course on Feb. 23 and 24 was attended by about 125 poultry industry leaders from the Southeast. Clemson personnel appearing on the program included President R. C. Edwards, Dr. Tom Eleazer, Dr. B. W. Bierer, Dr. W. T. Derieux, Dr. Ken Holleman, Dr. B. D. Barnett, Dr. M. A. Boone, Dr. D. E. Turk, Dr. J. E. Jones, Dr. J. Solis, Dr. Ben Kissam and Graduate Assistant, in Entomology and Economic Zoology, Bill Krebs.

SOCIAL SCIENCES

The History faculty will host the forty-first Annual Meeting of the South Carolina Historical Association at Clemson on Apr. 3. Patricia K. Hill (Asst Prof) is chairman of the committee making arrangements for the meeting. Diane Neal (Grad Stu) will present a paper, "Ben Tillman: No Apologies for Lynching." H. D. Adams (Asst Prof) will be a discussant.

J. L. Arbena (Asst Prof) presented a paper, "Columbian Interpretations of the Role of the United States in the Independence of Panama," to a meeting of the Missouri Valley Historical Association on Mar. 13.

VOCATIONAL EDUCATION MEDIA CENTER

Betty P. Watkins (Asst Prof) participated in the South Carolina Home Economics Association Feb. 26-27 in Greenville. Mrs. Watkins spoke to the Elementary, Secondary and Adult Education Section on "Innovations in Consumer Education."

ZOOLOGY

W. K. Willard (Asst Prof) has authored and/or co-authored the following papers which have been accepted for publication: "Population Response of Twelve Insect Species Following Exposure to Ionizing Radiation." Ann. Entomol. Soc. Amer. "Comparative Radiosensitivity: A Unifying Concept." University of Ga. Press. "Comparative Radiosensitivity in the Class Insecta." University of Ga. Press.

W. K. Willard has been invited to present a paper at the Third National Symposium on Radioecology to be held at the Oak Ridge National Laboratory May 10-12. The paper to be presented is entitled "Dynamics of Conotrachelus Nenuphar Populations following Exposure to Ionizing Radiation." The proceedings of the symposium will be published jointly by the AEC and the Ecological Society of America.

CALENDAR OF CAMPUS EVENTS

April 1-	Thurs.-	8:00 p.m.	Little Theatre - Food Industries Theatre.
April 4	Sun.		
April 1	Thurs.	3:00 p.m.	Agricultural Economics and Rural Sociology Seminar Series -- Richard G. Dobbins, Clemson University, "Implications of Changing Market Structure in the Dairy Industry."
April 1	Thurs.	4:00 p.m.	Physics Colloquium - Dr. William Meggs, Department of Physics, University of Rochester, will speak on "Pi-Pi Scattering" - Room 101, Kinard Laboratory of Physics.
April 2-	Fri.-		Southeastern Renaissance Conference, Daniel Auditorium.
April 3	Sat.		
April 3	Sat.		Baseball - Wake Forest.
April 4	Sun.		Baseball - Duke.
April 6	Tues.		Clemson Area Continuing Education Classes.
April 6	Tues.	4:00 p.m.	Zoology Seminar - Room #330 - Long Hall: Dr. John F. Vernberg, Professor of Biology, University of South Carolina "Physiological Ecology of Marine Animals."
April 6	Tues.	4:00 p.m.	Charles F. Moore of Duke Power Company will lecture on "Wildflowers of the Piedmont and the Blue Ridge Foothills." Room 201 Godfrey Hall.
April 6	Tues.		Tennis - at South Carolina.
April 7	Wed.		Army ROTC - Honors and Awards Day.
April 7	Wed.		Classes end at 12 noon.
April 7	Wed.		Baseball - at Georgia.
April 7	Wed.	4:00 p.m.	Food Science Seminar - Dr. Arno Visser (Food Science Section, Fruit and Food Technology Research Institute, Stellenbosch, Republic of South Africa) will speak on "Research in the Dried Fruit Industry of South Africa" -- P&AS Building, Room F-150.
April 8	Thurs.	4:00 p.m.	Physics Colloquium - Dr. Mark W. Zemansky, Professor Emeritus, The City College of New York, will speak on "Forty Years of Teaching Thermodynamics" - Room 101, Kinard Laboratory of Physics.
April 8	Thurs.	2:00 p.m.	Tennis - Harvard at Clemson.
April 10	Sat.		Baseball - at University of North Carolina.
April 10	Sat.	2:00 p.m.	Tennis - North Carolina at Clemson.
April 10	Sat.	10:30 a.m.	Soccer - spring game.

CALENDAR OF CAMPUS EVENTS Continued

April 11	Sun.		Easter Sunday.
April 11	Sun.		Baseball - at N.C. State.
April 12	Mon.		Clemson Week Around The World.
April 12	Mon.	2:00 p.m.	Tennis - Georgia at Clemson.
April 13	Tues.		Clemson Area Continuing Education Classes.
April 13	Tues.		Clemson Band Concert and Choir - Daniel H.S. Auditorium.
April 13	Tues.		Baseball - at Georgia Tech.
April 13	Tues.	4:00 p.m.	Zoology Seminar - Room #330 - Long Hall -- Dr. Gerald W. Esch, Professor of Biology, Wake Forest University.
April 13	Tues.	4:00 p.m.	Food Science Seminar - Dr. Romeo T. Toledo (Assistant Professor of Food Engineering, University of Georgia, Athens, Georgia) will speak on "Rheological Properties of Fluid Foods" - P&AS Bldg., Room F-150.
April 14	Wed.	12:15 p.m.	Plant Pathology Seminar - Dr. C.W. Kuhn, Department of Plant Pathology and Genetics, University of Georgia, will speak on <u>Mechanism of in vivo Inactivation of Plant Viruses.</u>
April 14	Wed.		Baseball - Georgia.
April 15	Thurs.		Tennis - at Maryland.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

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CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

April 15, 1971

APR 14 1971

1,500 STUDENTS HONORED

Some 1,500 University students were cited for superior scholastic achievement and excellence in non-academic areas during Honors and Awards Day ceremonies.

Recipients of top non-academic awards included Judith Anne Kossler of Charleston, and James R. Sursavage of Andrews, N.C. both December graduates of Clemson who were awarded Algernon Sydney Sullivan medallions for generous and outstanding service to the university. Non-student recipient of the Sullivan award was Gaston Gage of Clemson, an emeritus of the College of Industrial Management and Textile Science. (Continued on page 2.)



ASTRONAUT VISITS UNIVERSITY -- Apollo astronaut Fred W. Haise, Jr., second from left, chats informally about what it's like to be an astronaut during his visit at the University, Apr. 2. From left are President Robert C. Edwards; Libby Duguid, freshman from Williamsburg, Va., and member of the Speaker's Bureau which sponsored the space pilot's lecture; and Dr. N.L. Olsen, Bureau adviser and associate professor of English. Haise was lunar module pilot on the ill-fated Apollo 13 mission, which almost ended in disaster.

1,500 STUDENTS HONORED Continued

The Trustees Medal, given annually to the best speaker in the student body, was won by Samuel F. Williams Jr., sophomore English major from Allendale.

Top academic awards went to Mrs. Georgia A. Williams, senior German major from Clemson, who received the American Association of University Women Award for the coed who will graduate with the highest cumulative grade-point ratio (3.9 out of a possible 4.0).

Phi Eta Sigma awards for seniors with the highest scholastic average also went to Mrs. Williams and to Mark G. Savitsky, physics major from Clemson (3.9).

Jerome C. Wells, pre-medicine major from Orangeburg, was recipient of the Phi Kappa Phi Award for the junior earning the highest scholastic record (4.0).

UNIVERSITY TO HOST ASEE SECTION MEETING

Clemson will host the annual meeting of the American Society of Engineering Education (ASEE), Southeastern Section, April 14-16. The conference will bring some 300 professional engineers together for an intensive look at and exchange of ideas about goals and problems in teaching, research and administration in engineering education. Their discussions will also focus on the relationship between industry and education.

SELF HOSPITAL, UNIVERSITY IN JOINT PROGRAM

Self Memorial Hospital at Greenwood and the University are cooperating in a new program which will add another dimension to the education of Clemson students preparing for careers in medical technology.

Officials of both institutions have approved an arrangement which will allow Clemson's medical technology majors to take the final year of training at the hospital's School of Medical Technology after spending the first three years in classes on the main campus.

This is the third such cooperative program between Clemson and South Carolina hospitals since the university established its four-year curriculum in medical technology in 1964. Similar agreements with Greenville General and Anderson Memorial hospitals are already in effect.

GENERAL FACULTY MEETING

A meeting of the General Faculty has been set for 10:00 a.m. on Thursday morning, May 6, 1971, in the auditorium of Tillman Hall.

GRADUATE COUNCIL MEETING, MARCH 12, 1971

The Graduate Council met in Tillman Hall, Room 21, on March 12 at 3:50 p.m. Members of the Council present for this meeting were: Dean Schwartz, Dr. Allen, Dr. Bolen, Dr. Godley, Dr. Graben, Mr. Hodges, Dr. Jensen, Dr. Riggs, Mrs. Sawyer, Dr. Shivley (for Dr. Tombes), Mr. Vick and Dr. Wolf.

Dr. Graben moved that the minutes of the Graduate Council meeting of February 12, 1971 be approved. Council approved the minutes without dissent.

Dr. Allen, chairman of the subcommittee on graduate student course loads, reported that further consideration of the issues involved is necessary. A conference with the Graduate Dean, concerning this issue, will be held.

Dr. Graben, chairman of the subcommittee on language policy, moved that Prof. Dean's memorandum of December 2, 1970 (concerning substitution of course tests in German 151 and 152 for the GSFLT test as a measure of language proficiency) be adopted. After some discussion, the motion was modified to include, in principle, similar test substitutions for the French, Russian, and Spanish languages. Council approved the modified motion without dissent.

Mr. Hodges moved that Dean Landrith's request to teach Ed 434/634, Comparative Education in Europe, be granted. Council approved the motion without dissent.

Dr. Riggs moved that the amended form of the Research in Absentia policy (circulated to the Council by the Graduate Dean and placing more responsibility on the students' Advisory Committee) be adopted. Dr. Godley seconded the motion and it was adopted by the Council without dissent.

Several courses were administratively approved by the Graduate Dean. These actions primarily involved changes of course organization and/or numbering. The approved courses were: Civil Engineering 630; Environmental Systems Engineering 832 and 833; and Fluid Mechanics (Engineering College) 801, 812, 814, 815, 816, 901, and 951. It was noted that the fluid mechanics courses represent a reorganization of material within the College of Engineering and that they therefore do not constitute a new program.

Dr. Wolf moved that the courses, Fluid Mechanics 811, 817, 841, 921, and 931 be adopted. Dr. Godley seconded the motion and it was approved without dissent by the Council.

Mr. Hodges moved that the seminar course Economics 831 be adopted. Council approved the motion without dissent.

GRADUATE COUNCIL MEETING, MARCH 12, 1971 (Continued)

Dr. Jensen moved that the courses Education 720, 721, and 722 (associated with the program in school administration and supervision) be adopted. After some discussion, Dean Schwartz moved that the motion be amended in that the course titles reflect the idea of school administration. Both the amendment and the amended motion were approved by Council without dissent.

Dr. Godley moved that the course Entomology 758 be adopted. Council approved the motion without dissent.

Dean Schwartz assigned four subcommittees to study proposed new graduate programs:

1. Recreation and Parks Administration: Dr. Allen (chairman, Mrs. Sawyer, and Dr. Bolen.
2. Ph.D. in Management Science: Dr. Wolf (chairman), Dr. Graben and Dr. Riggs.
3. Elementary Education Program: Dr. Bolen (chairman), Mr. Hodges, and Dr. Jensen.
4. Six-year Reading Program: Dr. Tombes (chairman), Mr. Hodges, and Mr. Vick.

The next meeting of the Graduate Council was tentatively scheduled for April 2, 1971 in Room 21 of Tillman Hall, at 3:45 p.m.

At 4:45 p.m., Dr. Godley moved that the meeting be adjourned. Council approved the motion unanimously.

ARCHITECTURE

John T. Acorn (Assoc Prof), one-man exhibition of Selective Examples of Sculpture (1967-1971) March 3 through March 31 at Montclair State College Art Gallery, Upper Montclair, N. J.

CHEMISTRY

John Jacobus (Asst Prof) presented a lecture on his recent research to the faculty and students of the Chemistry Department at the University of Alabama, Tuscaloosa, Ala., March 17.

The Chemistry Department received from the National Science Foundation a grant which coupled with institutional funds, provides \$26,000 for the purchase of a mass spectrometer.

COUNSELING CENTER

Virginia S. Hardie (Dir) presented a research study, "An 'Open' Admission Policy, Personalized Individual Attention, and a Pass-Fail Grading System as Revealed in a Comprehensive Seven-Year Study of 1106 University Freshmen" at the national convention of The American Personnel and Guidance Association held in Atlantic City, N.J., Apr. 4 - 8, 1971.

She also spoke at the spring luncheon of The Clemson University Womans Club on Apr. 1. The title of her address was: "This Thing Called Women's Lib".

DEVELOPMENT OFFICE

Joe Sherman (Alumni Dir) spoke to and moderated a panel discussion at the American College Public Relations Association's Mason - Dixon Conference in Williamsburg, Va., Mar. 28 - 31. His topic was "Mobilizing the News Bureau to Further Specific Aims of the Institution."

Harry Durham (Dir Communications Center) presided over the business session of the district meeting of the American College Public Relations Association in Williamsburg, Va., March 29 - 31. About 250 development and public relations personnel from a five-state area attended the annual conference.

ENGLISH

R. J. Calhoun (Alumni Prof) is co-editor with John C. Guilds, Vice-Provost of USC of The Literature of South Carolina--1670-1970: a Tricentennial Anthology, USC Press, published March, 1971.

Jerry Blanche (Instr) organized and directed a debate workshop on the campus, Mar. 25, for speech-debate teachers and students from the colleges and high schools in South Carolina. The meeting was sponsored by the Calhoun Forensic Society and the South Carolina Speech Association.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

S. G. Turnipseed (Assoc Prof) attended and participated in the S-74 Soybean Regional Committee Meeting in Montgomery, Ala., Mar. 9-10. Plans for the 1971 insect control program for soybeans were made.

E. W. King (Prof) went to Beltsville, Md., Mar. 14-17 for a conference with USDA personnel regarding the establishment of a research project at Clemson dealing with biodegradation and utilization of wastes.

Raymond Noblet (Asst Prof) attended the meetings of the Georgia Entomological Society in Savannah, Ga., Mar. 16-18 and presented a paper entitled, "Effects of Selected Compounds on Immunity of Mosquitoes to Malaria."

T. R. Adkins, Jr. (Prof) attended a meeting of the Committee on Professional Training, Standards and Status of the Ent. Society of America (Chairman) and the North Central Branch, ESA, Meetings in Chicago, Ill., Mar. 22-24.

ENTOMOLOGY AND ECONOMIC ZOOLOGY Continued

J. K. Reed (Prof) was an invitational speaker at the symposium of the American Chemical Society Meeting in Los Angeles, Calif. on Apr. 1.

S. G. Turnipseed (Assoc Prof) attended the meetings of the National Soybean Conference in St. Louis, Mo., Mar. 1-4 and reported on the 1970 soybean insect control experiment in South Carolina.

FOOD SCIENCE

J. H. Mitchell, Jr. (Prof) was elected chairman-elect of the Dixie Section, Institute of Food Technologists, at the meeting of this organization in Atlanta on Mar. 19.

HORTICULTURE

T. L. Senn (Hd and Prof) recently served as one of two South Carolina members of a regional Fruit and Vegetable Advisory Council of the Federal Land Bank and Federal Intermediate Credit Bank of Columbia.

INTERDISCIPLINARY STUDIES

H. R. Bungay, III (Prof) authored a paper entitled, "FERMT - A Fermentation Process Game," which appeared in the February issue of Process Biochemistry.

MATHEMATICS

W. H. Ruckle (Assoc Prof) authored a paper entitled, "Continuous decompositions" which appeared in the Revue Roumaine de Mathematiques Pures et Appliques, Vol. 5 (1970) pp. 1153-1170, with D. J. Fleming.

J. K. Luedeman (Asst Prof) authored the following three papers entitled, "On the embedding of topological domains into quotient fields" which appeared in Manuscripta Mathematica, Vol. 3 (1970) pp. 213-226; "A note on the E(S)-injectivity of R(S)" which appeared in the Canadian Mathematical Bulletin, Vol. 13 (1970) pp. 481-489; and "E-quasi injective modules and Utumi's E-quotient ring" which appeared in the Bulletin de la Societe Mathematique de Belgique, Vol. 22 (1970) pp. 368-374.

S. M. Lukawecki (Assoc Prof) has been named to the national committee of Sigma Xi charged with making arrangements for the 1972 annual meeting. This meeting is tentatively scheduled to be held at Myrtle Beach.

NURSING

Regina Thompson (Asst Prof) has been appointed a member of the Technical Review Committee of the S. C. Interagency Council on Aging.

NURSING Continued

Geraldine Labecki (Dean) and Leon Roswal (Dir, Associate in Arts Degree Program) participated in a meeting sponsored by the Southern Regional Education Board Mar. 31 - Apr. 2, Atlanta, Ga.

Leon Roswal participated in the annual meeting of the Dept. of Associate Degree Nursing Program sponsored by the National League for Nursing Mar. 3-5, Washington, D. C.

PHYSICS

P. B. Burt (Assoc Prof) published an article entitled "Perturbation Theory for Toroidal Plasma" in the January issue of Physics Letters, Vol. 34A. Dr. Burt also published an article entitled "Perturbation Theory in Toroidal Plasma" in the March issue of the Oak Ridge National Laboratory Report.

M. J. Skove (Prof) gave a lecture at South Carolina State College on Mar. 4 entitled "Superconductivity."

R. L. Chaplin (Assoc Prof) presented a paper at the 44th Annual Meeting of the South Carolina Academy of Science on Mar. 27 entitled "The Displacement of Atoms in Specific Crystallographic Directions in Aluminum."

Also, at that same meeting E. P. Stillwell (Prof) presented a paper entitled "The Effect of Uniaxial Tension on the Superconducting Transition Temperature of Sn and Sn Alloys." This paper was co-authored by D. R. Overcash (former Grad Stu), J. M. Cook (Grad Stu), and M. J. Skove (Prof).

CALENDAR OF CAMPUS EVENTS

April 15	Thurs.		Tennis - at Maryland.
April 16	Fri.		Tennis - at Virginia.
April 17	Sat.		Tennis - at Wake Forest.
April 17- April 18	Sat.- Sun.	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
April 17	Sat.		Baseball - Florida State (2).
April 18	Sun.		Tennis - at N.C. State.
April 18	Sun.		Baseball - Florida State.
April 19	Mon.	2:00 p.m.	Tennis - Furman at Clemson.
April 20	Tues.		Clemson Area Continuing Education Classes.
April 20	Tues.	7:30 p.m.	Clemson Young People's Concert, Littlejohn Coliseum. The Greenville Symphony Orchestra will present "Pictures At An Exhibition." Also included will be a performance by the Clemson Ballet Company. Tickets will be sold at the door for 50¢ each.

April 15, 1971

CALENDAR OF CAMPUS EVENTS Continued

April 21	Wed.		Baseball - Georgia Tech.
April 21	Wed.	2:00 p.m.	Tennis - Georgia Tech at Clemson.
April 22	Thurs.		Chemistry Visiting Lecturer - Dr. L.M. Jackman, Pennsylvania State University (Organic). Time and topic to be announced.
April 23	Fri.		Baseball - University of South Carolina.
April 24- April 25	Sat.- Sun.	2:30 p.m.	Clemson Area Youth Theatre - Daniel Hall Theatre.
April 26	Mon.		Exams begin.
April 27	Tues.		Clemson Area Continuing Education Classes.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 18

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

May 1, 1971

SPECIAL DEDUCTION OF SUMMER INSURANCE PREMIUMS FOR TEACHING FACULTY

The last salary check (1/18 of contract salary) for the academic year 1970-71 will be issued on May 7 to each member of the faculty who is paid on an academic year basis.

The Accounting Division will deduct authorized insurance premiums for the months of May, June and July from the salary checks to be issued on May 7. The August insurance premiums will be deducted from the August 31 salary check (the first check for the 1971-72 academic year).

Any member of the teaching faculty who will not return for the 1971-72 session may continue his insurance coverage through August 31, if he so desires, by delivering a check for the correct amount to W.J. Stamey in the Personnel Office prior to May 7, 1971. The check (or checks) should be payable to the insuring organization, not to Clemson University. Since the checks to cover August insurance premiums will not be presented to banks for payment prior to the end of the month, they may be dated August 31, 1971.

Any member of the teaching faculty who desires to cancel or reduce his insurance coverage effective in May, June or July must forward a written authorization to W.J. Stamey not later than April 30, 1971.

PUBLICATION OF NEWSLETTER TO CONTINUE THROUGH THE SUMMER

The Clemson Newsletter will be published throughout the summer months for the mutual benefit of both faculty and staff. Procedures for submitting Newsletter material will remain the same as those used during the regular academic sessions.

The following deadlines prevail: items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

GENERAL FACULTY MEETING

A meeting of the General Faculty has been set for 10:00 a.m. on Thursday morning, May 6, 1971, in the auditorium of Tillman Hall.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971

The meeting was called to order at 4:17 p.m. Minutes of the previous two meetings (February 9 and February 16) were approved as circulated. With regard to the February 9 minutes, President Prochaska called to the Senate's attention a memorandum from Dean Hurst which pointed out that communication with the faculty over priorities for the use of land and other facilities would be undertaken when needed "through normal channels."

President Prochaska reported that since the last meeting of the Senate he had attended meetings of the Educational Council, where a professional degree program in Agriculture was approved; of the Tri-Level Council, where the proposed University Senate and University Union priorities and alternatives had been discussed; and of the Speaker's Bureau, at the invitation of the Bureau members, where that body's current difficulties in the areas of budget and purposes were discussed.

President Prochaska also reported that the Senate reallocation for the coming year had been determined, based on new data from Dean Hurst's office, to be as follows: College of Agriculture and Biological Sciences, 9 members; College of Architecture, 1; College of Education, 3; College of Engineering, 6; College of Forest and Recreation Resources, 1; College of Industrial Management and Textile Science, 3; College of Liberal Arts, 6; School of Nursing, 1; and College of Physical and Mathematical Sciences, 5. Elections of members to replace those whose terms will expire should be held before the next Senate meeting scheduled for April 13. Before that date the present Advisory Committee of the Senate will meet to propose a slate of officers for the 1971-72 Senate.

Because the University Marshal Harold Cooledge had consented to attend the Senate meeting to answer questions about last year's survey of faculty opinion on alterations in graduation exercises, the agenda was altered to introduce Professor B. J. Skelton, Chairman of Ad Hoc Committee C, at this time. Professor Skelton first reviewed his committee's efforts to secure the survey in question and to determine its exact results; no copy of those results seems to be available and no member of the ad hoc committee of last year has a copy. Then Professor Cooledge offered a brief history of surveys of faculty opinion, beginning with one undertaken by the Student Senate some years ago, to which response was less than 1%, the results of which were dismissed as not being truly representative of faculty opinion. Professor Cooledge concluded with the summary of last year's survey, sent out under Dean Green's signature, results of which were equally meager and offered only an informal series of suggestions. His committee last year, however, had recommended retention of the ceremony of hooding and curtailment of individual presentation of diplomas to baccalaureate graduates. Professor Cooledge stated that this recommendation was turned down by the Board of Trustees. Professor Cooledge pointed out that, since the whole matter of graduation ceremonies must soon be examined again because of the increasing number of degrees awarded each year, the Senate's Committee C would probably merely duplicate the work of last year's committee and of the work which will be done in a year or two anyway, were it to pursue its present investigation further. In response to this suggestion, Professor H. D. Adams moved, seconded by Professor W. C. Whitten, that Ad Hoc Committee C be dissolved. The motion carried by unanimous voice vote, and President Prochaska thanked Professor Cooledge for his cooperation in the matter.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971 (Continued)

Before he left the meeting, Professor Cooledge asked Senate members to consider the importance of collegiate marshals, whose posts will carry greater responsibility and importance in future years.

In response to the suggestion made during the meeting of February 9, Professor H. D. Adams then moved, seconded by Professor W. C. Whitten, that the present graduation procedures, with the exception of that portion on honorary degrees which was included in a recent Clemson Newsletter, be printed in the Clemson Newsletter for the faculty's information. The motion passed by unanimous voice vote.

Reporting for the Welfare Committee, Professor J. C. Mullins moved that the matter of a student grievance committee, tabled at the February 9 meeting, be returned to the floor; this was seconded by Professor B. J. Skelton. The motion was approved unanimously. Professor Mullins then moved to amend the original motion to name the Vice-President of the Student Body as a member of the committee, rather than the Vice-President of the Student Senate, an office which does not exist. The motion, seconded by Professor H. D. Adams, passed unanimously. Professor J. L. Arbena moved, seconded by Professor K. Lehotsky, that the grievance committee be instituted on a trial basis only, so that if it were not successful, it might be dissolved without difficulty; the motion passed unanimously. Professor J. A. Hash moved, seconded by Professor W. C. Whitten, that the grievance committee should determine the nature of the complaints it would deal with and the method by which they be handled; this motion was passed unanimously. The question was then called, and the motion, as amended, read as follows:

Resolved: that a committee to be referred to as the Faculty-Student Relations Committee, composed of the Vice-President of the Faculty Senate (as chairman), Vice-President of the Student Body, an Assistant Dean of Students, and two other members, one each from the Faculty and Student Senates, be appointed by the President of the University to hear grievances by students against faculty members or other University employees, and to see a mutually satisfactory solution to the grievance. The committee itself shall determine the rules and procedures it will follow with regard to the complaints it will hear.

Further, if no satisfactory solution is found, the committee shall forward its findings to the President of the University via the Dean of Student Affairs and the Dean of the University with any appropriate recommendation.

The life of the committee shall extend no more than two academic years after its creation, unless the Faculty Senate requests such extension.

The motion passed by unanimous voice vote; one abstention was registered.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971 (Continued)

For the Admissions and Scholarship Committee, Professor J. L. Idol reported his committee's decision to ask for no Senate action in response to a Student Senate appeal to reconsider a ban on all major exams in the last week before final examinations. Professor Idol explained that his committee refused action for several reasons: first, the Faculty Senate rejected by an overwhelming majority a similar resolution a year ago; second, teachers sometimes rely on such late exams to determine exemptions from finals; third, several departments already discourage such late exams; and last, any firm proscription on exams constitutes a violation of academic freedom.

In response to a further request to have a print-out from the computer center sent to each faculty member of the grades he has given, so that he may be sure the grade he gave was that which was recorded, Professor Idol reported that Mr. Berry of the registrar's office will set up the mechanism for implementation of this plan, as soon as the new computer equipment is installed, in about six months. Until that time, any faculty member may have such a notation, at his request, on an individual basis; to perform this service for the entire faculty would, at this time, take too much of Mr. Berry's staff's time.

For the Research Committee Professor J. C. Fanning reported on the services of the chemical supply house for Clemson. He briefed the contractual arrangement, then pointed out that this contract can be terminated at any time that service is proven to be markedly substandard. Complaints should be made directly to department heads and deans, so that the appropriate administrators may be informed.

For the Policy Committee, Professor H. D. Adams reported no new business.

For Ad Hoc Committee A, Professor M. W. Jutras moved the inclusion in the policy section of the revised Manual for Faculty Members the paragraphs concerning personnel evaluation procedures, formerly a part of the information section of the manual, since these indeed represent University policy. He had made a few changes in wording and omitted part of the present statement, which represented unneeded information. Seconded by Professor K. Lehotsky, the motion passed unanimously. Professor Jutras then moved, seconded by Professor J. C. Mullins, the dissolution of Ad Hoc Committee A, whose work is complete, the motion passed unanimously.

For Ad Hoc Committee B, Professor R. F. Borgman moved the adoption, seconded by Professor J. L. Idol, of the description of the Student-Faculty-Administration Council (The "Tri-Level" Council), which included a change of name and an exact delineation of membership. The motion passed unanimously and will be included with those council and committee descriptions passed at the February 9 Senate meeting, which will be requested as the official descriptions to be outlined in the new faculty manual.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971 (Continued)

Professor Borgman then moved, seconded by Professor H. D. Adams, the adoption of the description of a Development Council. Professor V. S. Hodges, seconded by Professor E. A. Vaughn, moved to amend the description to allow the Faculty Senate President, suggested as a member of the council, to name a substitute at such meetings as he could not attend, the amendment passed by a vote of 21 to 5. The amended motion, as presented, read:

The Faculty Senate concurs with the Administration's recognition of the need for a Development Council and urges its speedy establishment. The Faculty Senate further recommends to the Administration that the Faculty be represented on the proposed Development Council or other such body through membership of the President of the Faculty Senate (or his designate) on the body and such other faculty membership as the Administration deems appropriate.

The motion passed by unanimous voice vote.

Professor Borgman then moved, seconded by Professor W. C. Whitten, a study by the 1971-72 Senate of a Master Planning Committee. The motion as presented read:

The 1971-72 Faculty Senate shall initiate a study pertaining to the formulation of a "Master Planning Committee" for the University. Such a committee should include student, faculty, and administration representatives and concern itself with the establishment of physical plant development and priorities.

The motion passed with only one negative vote.

Professor Borgman then moved, seconded by Professor H. D. Adams, to return to the floor the unfinished business of the descriptions of "Faculty Standing Committees to be Appointed by the President of the University." The motion passed unanimously. After minor amendment including the naming of the Assistant Deans of Students, rather than the Deans of Men and Women (titles no longer in current use), to the Social Affairs Committee and after discussion of the request for a place on each committee for a Senate member, the motion came to a vote and passed unanimously. This adds the last committee descriptions to the recommended list for inclusion in the new faculty manual. Professor Borgman then moved, seconded by Professor V. S. Hodges, that, its work being done, Ad Hoc Committee B be dissolved; the motion passed unanimously.

As prescribed by the Senate's Constitution, the proposed amendment to the Constitution and By-Laws, which was introduced at the February 9 meeting by Professor D. R. LaTorre, was reintroduced for action. The proposed amendment read:

For purposes of allocation of Senate seats and all other provisions of this Article, the professional librarians will be considered as faculty representing a school.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971 (Continued)

The amendment passed by unanimous voice vote and will be brought before the entire faculty for consideration at the General Faculty Meeting in May; if approved, it will be added to the By-Laws (immediately after the first sentence of Article II, Section 1) and a representative of the Library will then be seated as an official member of the Faculty Senate.

For the Admissions and Scholarship Committee, Professor J. L. Idol, seconded by Professor V. S. Hodges, moved the shortening of the time during which a student may drop a course without a recorded grade and a similar shortening of the time within which he may receive a WP. It was pointed out that this had long been a matter of concern with a large number of the faculty. Further, such a move should help faculty members to obtain corrected rolls at an earlier date than is now the case. The motion as presented read as follows:

The period in which a student may drop a course without record of the grade shall be reduced from four (4) to two (2) weeks; and the period in which a student may drop a course with a grade of Withdrew Passing shall be no more than one week after mid-term grades are due in the Registrar's Office.

The motion passed by a vote of 24 to 3.

Professor Idol then moved, seconded by Professor H. D. Adams, the urgent request for reconsideration of the freeze on funds for the purchase of books and periodicals. The motion read as follows:

In view of the short publishing life of many books and periodicals and the necessity of having current material for adequate teaching and research, the Faculty Senate expresses its deep concern over the complete freeze on funds for new book and periodical purchases for the Library as part of the University's general cut in the acquisition of new equipment. The Senate, therefore, recommends that the Administration authorize the release of part of these funds for urgently needed materials on a priority scale to be determined by the Director of the Library.

The motion passed by unanimous voice vote.

Professor V. S. Hodges presented and moved the adoption of, seconded by Professor K. Lehotsky, an amendment to the By-Laws of the Constitution of the Senate which asked for authorization to appoint an alternate for the Senator who represents any college or school which has but a single representative. As provided by the constitution, this amendment will come to a vote at the meeting of April 13.

President Prochaska then expressed his thanks to the Senate for cooperation throughout the year just passed and, this being the last meeting of the 1970-71 Senate, expressed thanks and appreciation to his officers and the chairmen of the standing and the ad hoc committees for their faithful and dedicated service throughout the year.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MARCH 9, 1971 (Continued)

Professor V. S. Hodges, seconded by Professor W. C. Whitten, moved a vote of thanks and appreciation in return for the outstanding service given to the Senate and the faculty as a whole by President Prochaska; this motion passed unanimously with applause from the entire Senate.

The meeting was adjourned at 6:16 p.m.

Absent: T. R. King; J. K. Johnson; M. K. Richardson; B. E. Gilliland; W. E. Castro, W. E. Gettys.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, MARCH 24, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:40 p.m. in the Student Government Conference Room.

Present were: Chairman Robert Behling, E. H. McCarter, M. N. Lomax, John Idol, Larry Kemmerlin, Bobby Prochaska, A. Wood Rigsby, George Moore.
Absent: Diane Kerr and M. W. Jutras.

ACTION: The minutes of the meeting of March 3, 1971 were approved as distributed by mail.

The Chairman noted that Dr. Jutras would not be present today and that no report was possible yet on the question of the apparent cutback in the library's acquisitions budget. This item will be pursued at the next meeting of the Council.

The Chairman and General Rigsby reported that the executive officers of the University have established a policy regarding who can use the computer sampling system. Requests for use should be made to the Dean of the University. The using agency is to be responsible for all expenses incurred such as computer time, programming, etc. Dean Hurst will have an appointed committee to consider all requests and make recommendations.

The above question arose when the Student Senate considered the possibility of using the system to determine if there was a need for a cooperative legal service on the campus for faculty and students to consult. Chairman Behling indicated he would explore the question further and report to the Council any definitive information.

There was considerable discussion on reorganization of AFSC, particularly in regard to faculty senate recommendations in consideration of strengthening the role of the Council. General Rigsby also noted that a suggestion had been made within the faculty that a provision be adopted by the Council assuring the Chairmanship always be held by a student representative. Further discussion on this item will continue at the next meeting, after the text of the faculty senate recommendations has been reviewed.

The Council adjourned at 2:15 p.m.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, APRIL 14, 1971

Chairman Robert Behling called the regular meeting of AFSC to order at 1:35 p.m. in the Student Government Conference Room.

Present were: Chairman Robert Behling, M. N. Lomax, John Idol, Larry Kemmerlin, Bobby Prochaska, A. Wood Rigsby, Diane Kerr, M. W. Jutras, and Secretary George Moore. E. H. McCarter was absent.

ACTION: The minutes of the meeting of the Council held on March 24 were approved as distributed by mail.

Dr. Jutras reported that he had attended a recent meeting of the University Union building committee. Apparently, he said, many, or indeed most of AFSC's recommendations regarding this project had been accepted. The thinking seems to envision a large "campus wide" union complex involving several buildings, but serving all the requirements originally sought in a single building.

Dr. Prochaska introduced a Faculty Senate "recommendation for a Faculty-Student Relations Committee."

ACTION: Dr. Prochaska's motion to accept the recommendation in principle was seconded and passed.

Two amendments to the text of the recommendation were then proposed:

ACTION: A motion by Mr. Lomax to name the committee the "Student Relations Committee" was seconded and passed.

ACTION: A motion by Mr. Moore to provide for an additional staff member on the committee was seconded and passed.

The text of the recommendation as it is to be presented to President Edwards is as follows; amendments are underlined:

A STUDENT RELATIONS COMMITTEE

Resolved: that a committee to be referred to as the Student Relations Committee, composed of the Vice-President of the Faculty Senate (as chairman), Vice President of the Student Body, an Assistant Dean of Students, and three other members, one each from the Faculty and Student Senates, and one representative from the staff who does not report to the Vice President for Student Affairs or Academic Affairs, be appointed by the President of the University to hear grievances by students against faculty members or other University employees, and to seek a mutually satisfactory solution to the grievance. The committee itself shall determine the rules and procedures it will follow with regard to the complaints it will hear.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, APRIL 14, 1971 (Continued)

Further, if no satisfactory solution is found, the committee shall forward its findings to the President of the University via the Dean of Student Affairs and the Dean of the University with any appropriate recommendation.

The life of the committee shall extend no more than two academic years after its creation, unless the Faculty Senate requests such extension.

Dr. Prochaska presented the following Faculty Senate recommendation relative to the Student-Faculty-Administrative Council (SFAC) --- now commonly referred to as the Tri-Level Committee:

FACULTY SENATE RECOMMENDATION

Student-Faculty-Administration Council (SFAC)

The Student-Faculty-Administration Council consists of nine voting members and one non-voting ex-officio member, the Vice President for Executive Affairs. The nine voting members are:

- a. The Dean of Student Affairs, the Vice President for Development, and the Dean of Undergraduate Studies;
- b. the President of the Faculty Senate, the Vice President of the Faculty Senate, and the Chairman of the Admissions and Scholarship Committee of the Faculty Senate;
- c. the President of the Student Body, and two additional members of the student body appointed by the President of the Student Body and confirmed by the Student Senate.

The Council elects its chairman annually from among the three student members, and reports directly to the President of the University. The principal responsibility of the Council is the consideration of areas of common concern and mutual interest to the Student Body, Faculty and Administration for the betterment of the University community.

Dr. Prochaska moved that the Council accept the recommendation.

Because of time, the Chairman ruled that further action on this motion, and subsequent discussion, would be held over until Thursday afternoon, Apr. 15 at 4:00. A special called meeting has been scheduled at that time and will be the final meeting of the presently constituted AFSC.

The Council adjourned at 2:35 p.m.

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, APRIL 15, 1971

Chairman Robert Behling called a special meeting of AFSC to order at 4:00 p.m. in the Student Center meeting Room One.

Present were: Chairman Robert Behling, M. N. Lomax, John Idol, Larry Kemmerlin, Bobby Prochaska, A. Wood Rigsby, Diane Kerr, M. W. Jutras, E. H. McCarter and Secretary George Moore.

ACTION: A draft of the minutes of the Council meeting of April 14 was approved.

Dr. Jutras offered anew the Faculty Senate resolution regarding a Student-Faculty-Administration Council (SFAC). On the question of adopting the resolution as originally presented, Dr. Jutras moved to divide the question and provide for amendments on specific points.

ACTION: A motion by Dr. Jutras to substitute for subparagraph a, a statement providing for administration prerogative in selecting its representatives to the Council, was seconded and passed.

It was the consensus of the Council that subparagraph b should stand as proposed in the Faculty Senate resolution.

ACTION: Mr. Kemmerlin moved to substitute for subparagraph c a provision for selection of three student members of the Council by the Student Senate. (It was noted that this DOES NOT restrict membership on the Council to student senators.) The motion was seconded and passed.

ACTION: Dr. Jutras moved to delete the phrase "from among the three student members" from the statement of organization and purpose. This struck the provision restricting the Chairmanship to a student representative. The motion was seconded and passed unanimously.

ACTION: Dr. Jutras then moved adoption of the resolution with the amendments approved by the Council. The motion was seconded and passed.

The text of the amendment as it was accepted by the Council for referral to President Edwards is as follows: amendments are underlined, deleted portions are omitted:

FACULTY SENATE RECOMMENDATION

Student-Faculty-Administration Council (SFAC)

The Student-Faculty-Administration Council consists of nine voting members and one non-voting ex-officio member, the Vice President for Executive Affairs. The nine voting members are:

- a. Three administration representatives, one each chosen from the areas of Business and Finance, Student Affairs and Development;

ADMINISTRATION-FACULTY-STUDENT COUNCIL MEETING, APRIL 15, 1971 (Continued)

- b. the President of the Faculty Senate, the Vice President of the Faculty Senate, and the Chairman of the Admissions and Scholarship Committee of the Faculty Senate;
- c. three student representatives selected by the Student Senate.

The Council elects its Chairman annually and reports directly to the President of the University. The principal responsibility of the Council is the consideration of areas of common concern and mutual interest to the Student Body, Faculty and Administration for the betterment of the University Community.

It was especially noted that the above amendments did not change in any way the autonomous status of the Committee as an advisory council, appointed by the President of the University, reporting directly to the President.

Chairman Behling and Dr. Prochaska reported briefly on the question of the status of the University Library's budget for books and periodicals. The Dean of the University through them assured the Council that all appropriate periodicals and books will be ordered or subscriptions maintained, and that a significant budget will be allocated the Library next fiscal year to assure continued progress toward an early achievement of the goal of one million volumes.

Dr. Prochaska and Dr. Idol asked that two items be referred to the subsequent Tri-Level Committee for study:

The Pass-Fail Grading System
The "Erasable F"

Chairman Behling thanked the members of the Council for their conscientious service during the year.

ACTION: Dr. Prochaska's motion to commend Mr. Behling for his stewardship as Chairman of the Council received a unanimous second and was adopted, all councilmen voting aye.

There being no further business, the Council adjourned sine die at 4:45 p.m.

CLEMSON UNIVERSITY AT SUMTER

James A. Campbell, Instructor in History, has an article "Chestnut's A Diary from Dixie and its omissions" printed in the Virginia Social Science Journal (April, 1971).

MINUTES OF THE MEETING OF THE UNIVERSITY LIBRARY COMMITTEE, MARCH 2, 1971

Present: D. R. LaTorre (Chairman), J. A. Hash, Opal Hipps, Mary Lou Hockenberry, M. W. Jutras, J. J. McLaughlin (for R. J. Calhoun), R. E. Schoenike, J. M. Wannamaker, H. H. Wilson, J. W. Gordon Gourlay (Secretary).

Minutes of the meeting of February 2 were approved.

Dr. LaTorre reported that he had presented to the Faculty Senate the resolution concerning representation of professional librarians on the Faculty Senate.

Mr. Gourlay announced that a printout of new acquisitions had been distributed to each department and that it was anticipated that this information would be made available to each department on a regular schedule throughout the year.

Mr. Gourlay distributed for information a report, Library Highlights of the Sixties. The highlights included, (1) a new library building, (2) an increase in the library budget from \$174,000 to \$761,000, (3) an increase in total staff from 21 to 55, the professional staff increasing from 9 to 17 and holding degrees from 22 institutions of higher education, (4) the formulating of library policies by the University Library Committee, (5) the installation of an IBM Circulation System, (6) the planning of a library building for Clemson University at Sumter and the selection, acquisition and cataloging of 20,000 volumes for the library which was subsequently accredited by the Southern Association, (7) the organization of a Special Collections Department and the cataloging of four notable manuscript collections received during the 1960's; the James F. Byrnes Papers; the A. Frank Lever Papers; the Paul Quattlebaum Papers; and the Edgar A. Brown Papers.

Mr. Gourlay reported that 348 issues of journals had been stolen from the library over a period of six months. The loss is discovered when someone requires the journal or when volumes are being assembled for binding. Over the past year, some titles of a highly technical nature had been taken - Annales de Parasitologie. Humaine et Comparee (1 issue, \$39.10); Sankhya: Indian Journal of Statistics (4 issues, \$37.80); Soviet Genetics (1 issue, \$26.50); Molecular Biology (1 issue, \$30.50); Pollution Abstracts (2 issues, \$24.00); Academie des Sciences. Comptes Rendus (3 issues, \$18.00).

Other titles not so expensive included single issues of Radiation Botany; Genetical Research; Microbial Genetics Bulletin; Canadian Journal of Microbiology; Canadian Journal of Genetics and Cytology; Entomological Society of America. Annals; Contributions to Mineralogy and Petrology.

MINUTES OF MEETING OF LIBRARY COMMITTEE, MARCH 2, 1971 (Continued)

Dr. LaTorre said that he would distribute the list of missing journals to the heads of departments.

Dr. LaTorre said that for the April meeting of the University Library Committee he would invite Dr. John L. Idol to discuss the library self-study which is being made for the Southern Association. Dr. Idol is Chairman of the Library Committee for the Institutional Self-Study.

Time of next meeting - Tuesday, April 6 at 4:00 p.m.

GRADUATE COUNCIL MEETING, APRIL 2, 1971

The Graduate Council met in Tillman Hall, Room 21, on April 2, 1971, at 3:45 p.m. Members of the Council present for this meeting were: Dean A. E. Schwartz, Dr. R. M. Allen, Dr. C. W. Bolen, Dr. W. C. Godley, Dr. H. W. Graben, Mr. V. S. Hodges, Dr. A. K. Jensen, Dr. G. D. Riggs, Dr. A. S. Tombes, Mr. Larry Vick, and Dr. J. S. Wolf. Mrs. Gayle Sawyer was absent.

The Council approved the minutes of the Graduate Council meeting of March 12, 1971, without dissent.

Mr. Hodges, chairman of the subcommittee on residence requirements, reported on the activities of that subcommittee, and moved that the question of the meaning of resident and residence requirements be studied by a future committee. Dr. Godley noted that the Self-Study might have results useful to the undertaking. Council approved the motion without dissent.

Dr. Tombes, chairman of the subcommittee on the Six-Year Reading Program, recommended that the program be approved. Council approved the motion without dissent.

Dr. Wolf, chairman of the subcommittee on the Management Science Program, moved that the program be approved. Council approved the motion without dissent.

Dr. Bolen, chairman of the subcommittee on the Elementary Education Program, moved that the program be approved. Council approved the motion without dissent.

Dr. Allen, chairman of the subcommittee on the Master of Recreation and Parks Administration Program, moved that the program be approved. Council approved the motion without dissent.

Dr. Graben, chairman of the subcommittee on Language Policy, recommended:

1. that the alternative of substituting six semester hours of approved courses in a "broadening area" be modified. It is suggested that each college submit a list of courses for its use to the Graduate Council for approval.

2. that our present use of passing scores of 450 and 600 be replaced by percentile scores of 25% and 75% respectively.

The Council accepted the recommendations.

GRADUATE COUNCIL MEETING, APRIL 2, 1971 (Continued)

The following courses were approved by Council:

Industrial Education 652	Advanced Projects
Education 628	The Systems Approach to Education
Economics 814	Welfare Economics
Economics 623	Economics of Housing
Textile Chemistry 822	Chemistry of Natural Polymers II
Materials Engineering 605	Physical Metallurgy I
Materials Engineering 606	Physical Metallurgy II
Materials Engineering 621	Mechanical Metallurgy
Materials Engineering 650	Special Topics in Materials Engineering
Materials Engineering 651	Corrosion of Materials

The following courses were tabled by Council:

Education 878	Seminar in Higher Education
Education 879	College Teaching
Computer Science 621	Introduction to Assembler Language Programming
Computer Science 622	Advanced Assembler Language Programming
Computer Science 623	Fundamentals of Software Design

The next meeting of the Graduate Council will be on Wednesday, May 5, 1971, at 3:00 p.m., Room 21, Tillman Hall.

SENIOR FULBRIGHT-HAYS PROGRAM FOR 1972-1973

The Committee on International Exchange of Persons announces that applications for senior Fulbright-Hays awards for university lecturing and advanced research during 1972-73 in over 75 countries are now being accepted. The booklet on the program for this period lists approximately 25% more awards than the booklet for 1971-72. It is available on request to the Committee, (2101 Constitution Avenue, Washington, D. C. 20418), or may be consulted at the office of the Faculty Fulbright Adviser, Office of University Research.

Application requirements include: U.S. citizenship; for lectureships, college or university teaching experience; for research awards, a doctorate or, in some fields, recognized professional standing as demonstrated by faculty rank, publications, compositions, exhibition record, etc.

July 1, 1971 is the deadline for applying for research awards, and it is the suggested date for filing for lectureships.

Senior Fulbright-Hays awards generally consist of a maintenance allowance in local currency to cover normal living costs of the grantee and family while in residence abroad, and round-trip travel for the grantee (transportation is not provided for dependents). For lecturers going to most non-European countries, the award includes a dollar supplement, subject to the availability of funds, or carries a stipend in dollars and foreign currency, the amount depending on the assignment, the lecturer's qualifications, salary, and other factors.

AGRICULTURAL EDUCATION

E. T. Carpenter (Hd and Assoc Prof), W. C. Bowen (Assoc Prof), F. E. Kirkley (Assoc Prof) and J. A. Hash (Asst Prof) participated in the 52nd Annual Southern Agricultural Education Conference at Oklahoma City, Mar. 29 - Apr. 1. Dr. Carpenter served as president of the Teacher Education Section; he also served on the Board of Directors of the overall conference. Professor Bowen chaired a session on "Rationale for Developing Guidelines for Teacher Education in Agriculture." Professor Kirkley, who is retiring, was recognized for 42 years of productive service to the profession.

Dr. Hash chaired a program planning meeting for the 20th Annual Southern Research Conference, which will meet at Clemson in July. He also served as secretary of the Teacher Education Section of the Agricultural Education Conference.

ARCHITECTURE

On Apr. 15, J. L. Young (Prof) presented a paper to the North Georgia Chapter of the American Institute of Architects on "Architecture in South Carolina, 1670-1970."

Sam Wang (Assoc Prof) has two photographic works included in Photo/ Graphics, an exhibition organized by George Eastman House, Rochester, N. Y., and five works included in New Photographics, an exhibition at Central Washington State College.

CHEMISTRY

Recent visiting lecturers from the Chemistry Department:

J. C. Fanning (Assoc Prof) to the Chemistry Dept., North Georgia College.

J. R. Bacon (Asst Prof) to the Science Students, Lexington High School.

J. H. Hobson (Alumni Prof) to the District 5 Science Teachers in Anderson County.

CIVIL ENGINEERING

D. B. Stafford (Asst Prof) presented a seminar entitled "Remote Sensing Applications to Earth Resources Studies" to the Clemson University Chapter of the Society of American Military Engineers on April 7 and to the Clemson University Chapter of the Society of Sigma Xi on April 8.

The National Cooperative Highway Research Program has approved a contract for \$99,981 for research regarding "Density Standards for Field Compaction of Granular Bases and Subbases." Principal investigator for this project will be J. P. Rostron (Assoc Prof) and associate investigators are F. L. Roberts (Asst Prof) and William Baron (Assoc Prof).

CIVIL ENGINEERING (Continued)

Billy L. Edge (Asst Prof) has received tentative approval for a one-year study entitled "Effects of Santee-Cooper Rediversion Project and State Port Authority's Expansion on Water Quality in the Cooper River." Dr. Edge and Ben Dysart (Assoc Prof, Env Systems) have received approval for a research project entitled "Siting Power Plants on Estuaries Considering Interaction of Thermal Pollution and Other Waste."

COLLEGE OF ENGINEERING

J. L. Edwards (Asst to the Dean) attended the annual meeting of the American Society of Mechanical Engineers Region IV Regional Administrative Conference in Durham, N.C., Apr. 2-3 and presented a report as Chairman of the Professional Divisions Interest Committee.

The College of Engineering sponsored an "Engineering at Clemson" conference for selected high school juniors and counselors on Apr. 8. In attendance were 162 juniors and 34 counselors from 61 high schools in the state. The attendees spent the day touring the College of Engineering facilities and attending special programs sponsored by the various engineering departments.

The College of Engineering hosted the annual state JETS (Junior Engineering Technical Society) convention on Apr. 9-10. In attendance were approximately 60 members and sponsors from JETS clubs in five high schools in the state. A highlight of the meeting was the project and papers contests held to select the state representatives to attend the Southeastern Regional JETS convention in Atlanta on Apr. 23-24.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

The South Carolina High School Counselors Seminar was held in Florence on Mar. 24. This seminar was sponsored by the J. E. Sirrine Textile Foundation.

On Apr. 13, the Greenville Chapter of Administrative Management Society presented its Educational Night Meeting at Ye Olde Fireplace Restaurant. W. D. Trevillian (Dean) presented a talk on "What is an Educational Conglomerate?" James E. Bostic (Ph.D. candidate in Textile Chemistry) presented a talk entitled "A Member of the Minority Experiences a Changing Scene."

W. C. Laffoday (Dir of Professional Dev) addressed Maj. Gen. William S. Coleman's staff and the Fort Jackson Armed Forces Management Association on Feb. 16 at Fort Jackson. Mr. Laffoday delivered the keynote address to the annual South Carolina Home Economics Association Convention in Greenville on Mar. 5.

ECONOMICS

Holley Ulbrich (Asst Prof) will serve on a panel on textile import quotas at the state convention of the League of Women Voters on Apr. 30 in Charleston.

H. H. Macaulay (Alumni Prof) delivered four lectures to faculty and students at Texas Technological University on Mar. 16-17. Dr. Macaulay presented a paper at the American Association of Textile Chemists and Colorists Symposium on The Textile Industry and the Environment held in Atlanta on Mar. 31-Apr. 1.

Bruce Yandle, Jr. (Asst Prof) has an article, "Monopoly Induced Third Degree Price Discrimination," published in the Spring 1971 issue of The Quarterly Review of Economics & Business. He also had an article, "Multiplier-Accelerator Interaction: A Graphical Interpretation," in the October 1970 issue of The Indian Journal of Economics.

Bruce Yandle, Jr. and J. C. Corbin (former Grad Stu) have an article, "Industry Regulation: The South Carolina Experience," in the 1971 issue of The Clemson University Review of Industrial Management and Textile Science.

Dr. Yandle has been selected to participate in a summer program, "Recent Developments in Applied Economics," to be held at the University of Chicago from June 20 to July 16. The program is sponsored by the General Electric Foundation and sponsored by the University of Chicago's Graduate School of Business.

ELEMENTARY AND SECONDARY EDUCATION

C. R. Freeze (Prof) and J. R. Harris (Asst Prof) have an article, "Teacher Openness as a Factor of Change in Counselors in Training," in the winter issue of the Western Carolina University Journal of Education.

ENGLISH

Edward P. Willey (Asst Prof) is the author of an article, "The Looker-On in America: Reception of a Latter-Day Spectator" in the current issue of The Papers of the Bibliographical Society of America.

M. S. Steadman, Jr. (Assoc Prof) has a story from his forthcoming book included in the current Works in Progress, which prints selections from the best in books to be published in coming months.

GEOLOGY

G. M. Haselton (Asst Prof) will participate in the Tenth International Field Institute in Spain, sponsored by the American Geologic Institute and the National Science Foundation, during July and August, 1971.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Hd and Prof) will serve as chairman of two sessions at the 69th National Meeting of Chemical Engineers to be held at Cincinnati, Ohio, May 16-19. The two sessions are entitled "Computer Simulation of Biological Processes Used for Waste Treatment" and "What Waste Water Parameters Shall We Measure?" At this same meeting, T. M. Keinath (Asst Prof) will present a paper on "Simulation of the Performance of Fluid-Bed Adsorbers for Multi-Component Systems."

J. F. Andrews will present a paper entitled "Thermophilic Processes for Wastewater Treatment," at the 71st Annual Meeting of the American Society for Microbiology, May 2-7, Minneapolis, Minn.

T. M. Keinath has received a grant of \$38,541 from J. P. Stevens & Co., Inc. to continue his research on the "Development of Process Technology for the Treatment of Textile Finishing Wastewaters." This additional grant brings the total funded to date to \$47,168.

The development of CRITERIA FOR THE ESTABLISHMENT AND MAINTENANCE OF TWO YEAR POST HIGH SCHOOL WASTEWATER TECHNOLOGY TRAINING PROGRAMS, a project funded by the Environmental Protection Agency and directed by J. H. Austin (Prof) is nearing completion. Representatives of the industry from around the country were present at the University the first week in April to assist with the preparation of technical details required by the project. Representatives assisting with the detailing came from Georgia, Maryland, Utah, Washington, and Texas.

INDUSTRIAL EDUCATION

A. F. Newton (Hd and Prof), P. C. Caley (Asst Prof), and W. E. West (Asst Prof) were guests at a meeting of the General Contractors of American Carolina's Branch, Midlands Chapter, in Columbia on Apr. 8. Dr. West presented "I.A.C.P. The World of Construction, An Innovation Program of Industrial Arts for the Junior High or Middle School." The contractor's group and the selected educators in attendance plan to cooperate in establishing pilot programs of The World of Construction for the 1971-72 school year.

INDUSTRIAL MANAGEMENT

T. H. Gunter (Asst Prof, Dir, Textile Marketing Forum) presented a paper "The Use of Biographical Information in the Selection, Training, and Counseling of Textile Salesmen" to the S. C. Academy of Science Annual Meeting on Mar. 27.

J. S. Hunter, Prof of Statistics, Princeton University, presented a lecture on "Applied Statistical Analysis in Sirrine Auditorium on Apr. 16.

R. M. Thrall, Prof and Chairman of the Dept. of Mathematical Sciences, Rice University and past president of The Institute of Management Science, presented two lectures on Apr. 12 entitled "A Discussion of the Simplex Algorithm," and "The Role of Management Science in the 1970's: Its Impact on Business, Education and Government."

INDUSTRIAL MANAGEMENT (Continued)

The recent address in the Industrial Management and Textile Science Seminar Series by J. Kelly Sisk, president of Multimedia, Inc., and publisher of the Greenville News, entitled "The Mass Media -- Its Place in Your World" was entered in the Feb. 18, 1971 Congressional Record.

INTERDISCIPLINARY STUDIES

The following papers were presented at the Third Annual Clemson University Symposium-Workshop on Biomaterials: March 29 - April 1.

P. J. Aragon (Postdoc), "Electrochemical Techniques in Biomaterials Evaluation," J. J. Klawitter (Asst Prof), "Workshop - Bio-Evaluation of Hard Material Implants," B. W. Sauer (Asst Prof), "Workshop - Implant Surgery - Research Techniques," G. C. Robinson (Hd and Prof, CrE), "Workshop - Processing and Analysis of Ceramic Products," S. F. Hulbert (Assoc Dean), "Problems Associated with Determining Compatability of Biomaterials," J. E. Lemons (Asst Prof), "Techniques and Applications of Quantitative Microscopy in Implant Materials Research," B. W. Sauer (Asst Prof), "Choice of Animal Models for Biomaterials Evaluation," J. J. Klawitter, "Research Techniques for Evaluating Tissue Growth Within Porous Materials," H. R. Bungay (Prof), "Tissue Culture Screening of Biomaterials," W. E. Castro (Assoc Prof, EM), "Evaluating Turbulence Reduction in Blood Flow Using Polymeric Additives."

S. F. Hulbert presented a paper entitled "Use of Ceramics in Otolaryngology," at the spring meeting of the Southeastern Section of the American Ceramic Society, Calloway Gardens, Ga., Apr. 3. Dr. Hulbert also presented a paper entitled "The Potential of Ceramic Materials as Permanently Implantable Percutaneous Devices," at the annual meeting of the Biomedical Engineering Society, Chicago, Ill., Apr. 13.

MATHEMATICS

J. W. Kenelly (Prof and Hd) visited Winthrop College on Mar. 31 and gave an invited address, "Geometry and Linear Optimization," to the mathematics faculty and students.

Sue K. Dunkle (Asst Prof) has been awarded a fellowship grant to attend the National Science Foundation Summer Institute in Linear Algebra and Topology at Vanderbilt University from June 7 to July 17.

PHYSICS

A. L. Laskar (Assoc Prof) presented the following two papers at the American Physical Society meeting held at Cleveland, Ohio, Mar. 29 - Apr. 1: "Interstitial-Vacancy Diffusion of Cadmium in Silver Chloride" with E. W. Sawyer (former Grad Stu) and "Self-Diffusion of Sodium and the Isotope Effect in NaCl" with S. J. Rothman and N. L. Peterson (Argonne National Laboratory, Illinois).

MECHANICAL ENGINEERING

J. C. Hester (Hd and Assoc Prof) attended the meeting of the combined ASME Region 4 and Region 2 Mechanical Engineering Department Heads meeting in Durham, N.C., Apr. 1-2. Dr. Hester was selected as Secretary of the group which includes 17 universities throughout the Southeast.

T. Yang (Prof) presented a seminar entitled, "Contoured Wall Diffusers," to the Mechanical Engineering Dept. of Virginia Polytechnic Institute, Blacksburg, Va. on Apr. 5. Dr. Yang has received a grant from Lewis Research Center, NASA, for continuation of the "Annular Diffuser Program" for the next 12 months in the amount of \$54,448. W. G. Hudson (Assoc Prof) will be a co-investigator.

Eugene Harrison (Prof), incoming Chairman of the Executive Committee of the Automatic Control Division, attended the society's Technology Executives' Conference held Mar. 14-16 at the Arden House, Harriman, N. Y.

A grant has been presented by the American Hospital Supply Corporation to further the cooperative program in engineering design conducted by the Medical University of S. C. and the Mechanical Engineering Dept. of Clemson University. The unique program involves Clemson engineering students in the original design and construction of prototypes of useful medical devices. Students have devised such items as a cataract removal instrument, a special evacuation stretcher, a battery-powered machine to heat air for emphysema victims during cold weather and a tilt-type hospital bed. The program is jointly administered by Thomas Hargest, director of the Engineering Development Section, Dept. of Surgery, at the Medical University and D. W. Bradbury (Alumni Prof).

RECREATION AND PARKS ADMINISTRATION

J. L. Stevenson (Assoc Prof) spoke to the Region IV Convention, American Camping Association, at Daytona Beach, Fla., Mar. 12. Title of his address, "Training and Leading Your Camp Staff." He took office also as Chairman of the Studies and Research Committee of the Southeastern Section, American Camping Association.

L. W. Gahan (Asst Prof) received a grant of \$1,300 funded under Title I, Higher Education Act of 1965. Dr. Gahan's project is entitled "Seminar for Recreation and/or Park Commissioners" and will involve lay persons serving as recreation and/or park commissioners in all levels of government throughout the state.

G. E. Howard (Asst Prof) was elected Vice-President Elect for Recreation at the spring meeting of the S. C. Association for Health, Physical Education and Recreation.

Mrs. Sarah Walker (Asst Prof) has received a grant of \$10,299 from the Education Professions Development Act through the U. S. Office of Education to conduct a workshop in environmental education June 6-12.

RECREATION AND PARKS ADMINISTRATION (Continued)

The one-week Teach-In will be provided for 36 in-service elementary and secondary teachers and administrators from South Carolina to encourage more environmental education in the schools. Particular attention will be given to familiarizing the participants with the locally developed People and Their Environment curriculum guides for teachers which are now available but are not well utilized in the schools. A planning council composed of representatives from business, industry, government, and academic agencies will establish the format and content of the Teach-In. Participants will be selected from local education agencies within the state in teams of three. It is anticipated that the participants will spread the ideas and techniques gained at the Teach-In to others in their locale thus assuring a multiplier effect. It is hoped that the interdisciplinary approach to planning and conducting the Teach-In will serve as a model for other institutions of higher learning. A thorough evaluation and report of the Teach-In will be made.

SOCIAL SCIENCES

Hewitt Adams (Asst Prof) presented a paper, "The Sino-Soviet Split, a Chinese View," at the Virginia Asian Studies Consortium spring meeting, at Virginia Military Institute, on Apr. 23.

Four psychology teachers and four psychology students will present papers at the meetings of the Southeastern Psychological Association in Miami, Fla. on Apr. 28 - May 1. B. C. Caffrey (Assoc Prof) and W. C. Capel (Asst Prof) will present two papers: "Social Attitude Patterns of Gamecock Fighters; Patrons of a Stigmatized Sport," and "Social Attitude Patterns Distinguishing Black from White Students on a Southern Campus." B. C. Caffrey and Carlos Leon, M.D. (International Center for Medical Research and Training, Cali, Colombia) will present a paper: "Psychological Characteristics of Frustrated Suicides." N. S. Cole (Asst Prof) will present a paper: "Pattern Analysis of WISC Scores for Southern Blacks." Thomas Titus (Asst Prof) will discuss the paper: "The Effects of an Additional Attribute to List Presentation on Short Term Retention." W. B. Turpin (Asst Prof) will read: "The Myth of Partial Reinforcement in Non-reversal Shifts."

W. C. Capel presented three papers at the Sociology Section of the Southwestern Social Sciences Association meeting in Dallas, Tex., Mar. 25-27. These were: "The Family Life of Heroin Addicts in New Orleans," with June Clark and G. T. Stewart, Tulane Medical School; "Hypergammy: Fact or Hypothesis?" with B. C. Caffrey and "The Demography of Drug Addiction in New Orleans" with B. Goldsmith and G. T. Stewart, Tulane Medical School.

W. C. Capel has been invited by NIMH to act on a team with Jerome Jaffe and Robert Isbell (Chicago and Yale) to make a site visit and evaluation of a grant application for Southern University, New Orleans on Apr. 2-3.

R. S. Lambert (Prof on leave) presented a paper, "Tories Across the Savannah," at the meeting of the Georgia Historical Society in Savannah, Mar. 27. He also participated in a conference of the advisory committee and senior researchers of the Program on Loyalist Studies and Publications which was held Mar. 4-5 at the American Antiquarian Society, Worcester, Mass.

TEXTILE DEPARTMENT

Hassan El-Behery (Visiting Assoc Prof) and V. A. Robbins, Jr. (Grad Stu) presented a paper entitled "The Effect of Drafting on Nep Formation in Polyester Staple" at The Textile Quality Control Association spring meeting in Atlanta, Ga. on Mar. 25-26.

C. W. Roberts (Assoc Prof) has been elected to serve as Chairman of the Organic Coatings and Plastics Chemistry Division of the American Chemical Society.

J. J. Porter (Assoc Prof) presented a paper "Textile Waste Treatment: Practices, Needed Research and Federal Legislation" at the Water Pollution Symposium, AATCC, in Atlanta, Ga. on Apr. 1.

A conference on False-Twist Textured Yarns was held here on Mar. 23-24. The conference was very well attended by companies concerned with knitted yarns and related machinery and products, and the demand was such that a second session is being held on this subject on May 18-19.

VOCATIONAL EDUCATION MEDIA CENTER

R. T. Benson (Asst Prof) participated in the Southern Agricultural Education Conference, Mar. 29-Apr. 1 held in Oklahoma City, Okla. Dr. Benson spoke to the Agricultural Mechanics Section on "A Safety Program for Vocational Agriculture" and made a slide and audio tape presentation to the Subject Matter Specialists Section on the "Development and Evaluation of a Media Center Publication."

A. K. Jensen (Dir and Assoc Prof) and R. D. Mattox (Lecturer) presented a program entitled "The National Status of Instructional Materials Preparation in Vocational Education" at the annual convention of the Association for Educational Communications and Technology in Philadelphia, Penn., Mar. 25.

WATER RESOURCES RESEARCH INSTITUTE

The Water Resources Research Institute will be soliciting proposals for its matching grant and allotment programs to be submitted approximately Sept. 15 (earlier than in past years). Revised outline and forms for submission will be available in late summer for those desiring to submit projects. Current procedures should be used as a guide until new information is received from the Office of Water Resources Research.

ZOOLOGY

At the Thirteenth Southeastern Developmental Biology Conference held Mar. 19-20 at Florida State University, William Bachop (Asst Prof) presented a paper entitled "Ultrastructural and Biochemical Parameters of Mitochondrial Differentiation in Respiratory-Deficient Mutants of Baker's Yeast."

CALENDAR OF CAMPUS EVENTS

May	1-	Sat.-	1971 Thesis Presentation - Sponsored by the Clemson
June			Architectural Foundation.
May	4	Tues.	Baseball at U.S.C.
May	6	Thurs.	Baseball - Virginia.
May	6	Thurs. 10:00 a.m.	General Faculty Meeting - Tillman Hall Auditorium.
May	7	Fri.	Commencement.
May	7	Fri.	Joint Army/Air Force Commissioning Ceremonies.
May	7	Fri.	Baseball - Virginia.
May	8	Sat.	Baseball - Maryland.
May	9	Sun.	Baseball - Maryland.
May	11-	Tues.-	Fourth Annual Textile Marketing Forum sponsored by
May	13	Thurs.	College of IM/TS.
May	12	Wed.	Baseball at Duke.
May	12	Wed.	Tennis - Duke at Columbia, S.C.
May	13	Thurs.	Baseball - at Wake Forest.
May	13-	Thurs.-	Tennis - ACC Tournament at Columbia.
May	15	Sat.	
May	14	Fri.	Baseball - at Va. Tech.
May	15	Sat.	Baseball - at Va. Tech.
May	16	Sun.	Baseball - at Va. Tech.
May	18	Tues.	Summer session classes begin.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON

MAY 14 1971

NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 10 No. 19

May 15, 1971

UNIVERSITY GRADUATES RECORD CLASS

The University awarded 752 degrees at its 75th Commencement, a record number of graduates for one commencement at the institution. President Edwards conferred 10 associate in arts degrees, 660 bachelor's degrees, 67 master's degrees and 15 doctorates. Clemson has awarded 1,378 degrees since graduation a year ago and 24,093 in its history.

One hundred and eighty-one students -- about 24 per cent of the graduating class -- were cited for outstanding scholastic achievement. Fourteen students were graduated with highest honor, which requires a cumulative grade point average of 3.8 to 4.0 (4.0 is all A's).



NEW UNIVERSITY REGALIA -- Walnut display stands for the new University Mace and Presidential Chain and Seal are presented to President Edwards by (center) Don Kelley, president-elect, and Joe Turner, president of Tiger Brotherhood, which is donating the stands as a service project. Used for the first time at the May Commencement, the new regalia were designed and executed by Robert Ebendorf of the department of fine arts of the University of Georgia.

UNIVERSITY GRADUATES RECORD CLASS Continued

One of Clemson's top awards, the Norris Medal for best all-around student went to Paul W. Mims Jr., chemical engineering major from Columbia. The faculty scholarship award for the graduate with the highest academic achievement went to Georgia Angela Williams, liberal arts major from Clemson, who had a 3.97 grade point average.

NINE PROFESSORS RECEIVE EMERITUS TITLES

Nine Clemson professors whose combined careers at the University total almost three centuries of teaching were awarded emeritus titles at special faculty ceremonies May 6.

Robert R. "Red" Ritchie, retiring after 45 years, received the title of Professor Emeritus of Animal Science. Ritchie was chairman of the University Athletic Council from 1955-71.

The titles of Head Emeritus of the Physics Department and Professor Emeritus of Physics were awarded to Lorenz D. Huff, who has taught here since 1931. Huff was Physics Department head from 1946-67.

Koloman Lehotsky, retiring after 24 years, was named Head Emeritus of the Forestry Department and Professor Emeritus of Silviculture. He has been head of the Forestry Department since its establishment in 1956.

I.A. Trively received the title of Professor Emeritus of Civil Engineering. Trively has been at Clemson since 1941.

Francis E. Kirkley, a Clemson graduate ('29) who has taught at the University since 1937, was named Associate Professor Emeritus of Agricultural Education.

The title of Associate Professor Emeritus of Psychology was given to E. Emerson Waite Jr., retiring after 30 years.

The title Associate Professor Emeritus of Mathematics was given to Jonas W. Brown. He has taught at the University since 1942.

Daniel P. Thomson, who retires after 29 years, was named Associate Professor Emeritus of Textiles. Thomson is a Clemson graduate ('27).

The titles Associate Professor Emeritus of Forestry and Forest Manager Emeritus, the Clemson Forest, were given to Marlin H. Bruner, who has been at Clemson since 1954.

UNIVERSITY RECEIVES \$103,123 IN GRANTS

Clemson has received new grants totaling \$103,123 to support various faculty research projects, departmental programs, and a special institute for school teachers. The grants are:

-- \$56,482 from the U.S. Department of Health, Education and Welfare to the Division of Interdisciplinary Studies for support continuing research on the design
(Continued on page 3.)

UNIVERSITY RECEIVES \$103,123 IN GRANTS Continued

of a water disposable glass packaging container. This brings to \$219,982, the total funds which HEW has provided for the study.

-- \$14,961 supplement from the National Aeronautics and Space Administration to the Department of Electrical and Computer Engineering for research to determine if computers can be used to increase the safety of aircraft landings. A researcher says it may be possible to feed radar altimeter data into a small on-board computer to get a more accurate estimate of the plane's rate of descent.

-- \$13,000 from the National Science Foundation (NSF) to help purchase a mass spectrometer for chemical research in the Department of Chemistry.

-- \$11,180 from NSF for the Mathematics Department to conduct an in-service institute for secondary school teachers during the 1971-72 academic year.

-- \$6,000 from Union Carbide Corp. to departments in the College of Engineering.

-- \$1,500 from Owens-Corning Fiberglas Corp., an annual unrestricted grant from the firm.

SENIOR FULBRIGHT-HAYS PROGRAM FOR 1972-1973

The Committee on International Exchange of Persons announces that applications for senior Fulbright-Hays awards for university lecturing and advanced research during 1972-1973 in over 75 countries are now being accepted. The booklet on the program for this period lists approximately 25% more awards than the booklet for 1971-72. It is available on request to the Committee, (2101 Constitution Avenue, Washington, D.C., 20418), or may be consulted at the office of the Faculty Fulbright Adviser, Office of University Research.

Application requirements include: U. S. citizenship; for lectureships, college or university teaching experience; for research awards, a doctorate or, in some fields, recognized professional standing as demonstrated by faculty rank, publications, compositions, exhibition record, etc.

July 1, 1971 is the deadline for applying for research awards, and it is the suggested date for filing for lectureships.

Senior Fulbright-Hays awards generally consist of a maintenance allowance in local currency to cover normal living costs of the grantee and family while in residence abroad, and round-trip travel for the grantee (transportation is not provided for dependents). For lecturers going to most non-European countries, the award includes a dollar supplement, subject to the availability of funds, or carries a stipend in dollars and foreign currency, the amount depending on the assignment, the lecturer's qualifications, salary, and other factors.

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, APRIL 6, 1971

Present: D. R. LaTorre (Chairman), W. E. Castro, J. A. Hash, J. J. McLaughlin (for R. J. Calhoun), R. E. Schoenike, J. M. Wannamaker, J. W. Gordon Gourlay (Secretary).

MINUTES OF THE MEETING OF THE LIBRARY COMMITTEE, APRIL 6, 1971 Continued

The minutes of the meeting of March 2 were approved.

Dr. LaTorre reported that at the meeting of the Faculty Senate, Feb. 9, on behalf of the University Library Committee he moved the adoption of a resolution to amend the By-Laws of the Senate Consitution to permit membership of the professional librarians in the Faculty Senate. Dr. LaTorre also said that Mr. Ralph Knowland who was unable to be present, had reported to him that he was doing some research preliminary to calling a meeting of the Ad Hoc Committee to Investigate the Feasibility of Acquiring, Cataloging and Storing Audiovisual Materials in the main library.

Mr. Gourlay presented for information, that he had submitted to Dean C. B. Green and Mr. M. C. Palmer, Director of the Computer Center, a request that provision be made so that as much as practicable of the clerical detail of the book ordering procedures be achieved through use of the computer. He pointed out that the preparation of orders, filing, and record keeping will become increasingly cumbersome as the book budget increases and that wherever practicable the computer should be used to increase the speed and efficiency of order procedures.

Mr. Gourlay also reported that approximately 3,050 books had been selected, acquired, and cataloged for Clemson University at Greenville. At the present time some 150 cartons were packed and ready to send to Greenville as soon as shelving there became available. He anticipated that the project would be completed by May 31.

Dr. John L. Idol, Chairman of the Library Committee for the Institutional Self-Study made a report of work in progress by his committee and outlined its recommendation.

Dr. LaTorre announced that this was the last scheduled meeting of the University Library Committee and thanked the members for their co-operation during the year.

CHEMISTRY

Recent research lectures by the Chemistry faculty:

A. L. Beyerlein (Asst Prof) at the School of Chemistry, Georgia Institute of Technology, Apr. 27.

John Jacobus (Asst Prof) at the Department of Chemistry, University of West Florida, Apr. 29.

C. B. Bishop (Assoc Prof) has received a grant of \$4,458 for the study of polymerization processes from the Thermal Engineering Corp., Columbia.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

William C. Laffoday (Dir of Professional Dev) addressed the Administrative Management Society in Spartanburg on Mar. 16.

COMMUNICATIONS CENTER

Hal Smith (Photographer) has been named Assistant Supervisor for the Photographic Services of the University Communications Center.

COUNSELING CENTER

Dr. Virginia S. Hardie, Director of the Counseling Center, was on the program of the Southeastern Psychological Association Convention in Miami on April 30. The title of her research paper was: "A Revealing comprehensive Seven-Year Study of 1106 University Freshmen Attrition, Graduation, and Follow-Up."

CHEMICAL ENGINEERING

D. F. Bruley (Assoc Prof) presented an invited paper at the Federation of American Societies for Experimental Biology, "Modeling Cerebral Oxygen Transport," Apr. 14 in Chicago. Dr. Bruley has received an NIH Grant continuation for 1971-72 of \$36,404, "Mathematical Modeling of Oxygen Transport in Tissue." Dr. Bruley has had published, Analog/Hybrid Computer Educational Society, Application Note, "A Dynamic Simulation of A Continuous Microbiological Reactor," No. 13 (1971) with Thomas B. Young.

R. C. Harshman (Prof) and John David Wren (Ph.D. Candidate) will present a paper titled "The Effect of Chlorophyll Concentration and Radiant Energy Transfer on the Growth Kinetics of Chlorella pyrenoidosa TX 71105 in a Laminar Flow Photosynthetic Gas Exchanger During Low Intensity Illumination" at the 69th National Meeting of American Institute of Chemical Engineers on May 19 at Cincinnati, Ohio.

F. C. Alley (Prof) has been awarded two patents by the U.S. Patent Office on "Preparation of Dialhyl Disulfides" and "Removal of Sulfur Compounds from Gas Streams." The patents are in the Air Pollution Abatement area and are assigned to Westvaco.

The Chemical Engineering Department has received an unrestricted grant of \$1,000 from the Monsanto Company.

ECONOMICS DEPARTMENT

J. A. Ziegler (Asst Prof) has received a grant from the National Science Foundation to attend the Institute in Urban Economics at Stanford University June 27 - July 24. From national competition, twenty-five economists were selected to participate.

Bruce Yandle, Jr. (Asst Prof) delivered an address and participated on a panel during a seminar, "The Changing Environment of the World of Real Estate," held Apr. 6 at the University of South Carolina.

ENVIRONMENTAL SYSTEMS ENGINEERING

A. R. Abernathy (Assoc Prof), H. H. Macaulay (Alumni Prof, Econ), and F. C. Alley (Prof, ChemE) spoke on the "Action Line" on WFBC Radio in Greenville on Apr. 19. They answered listeners questions concerning environmental control.

INDUSTRIAL MANAGEMENT

T. H. Gunter (Asst Prof) presented a paper, "The Uses of Decision Science in Selection, Training, and Counseling Employees" at the American Institute of Decision Science meeting Apr. 30 in Blacksburg, Va.

W. D. Bender, A. E. Bachmann, A. R. Whitman, George McDaniel (Grad Stud) and Dr. Gunter each presented papers at the S. C. Academy of Science meeting in Charleston on Mar. 27.

C. O. Shuler (Assoc Prof) presented a paper and acted as panel discussant at the Association of University Programs in Health Administration's (AUPHA) annual meeting in Chicago, Apr. 12-14. Dr. Shuler's presentation summarized a 1970 study, "Capabilities of Clemson University to Offer a Graduate Program in Health Administration."

INTERDISCIPLINARY STUDIES

M. J. B. Paynter (Assoc Prof, Micro) and H. R. Bungay, III (Prof) had a note published in Science, Apr. 23 entitled "Characterization of Virulent Bacteriophage Infections of *Escherichia coli* in Continuous Culture."

MATHEMATICS

On Apr. 13, J. V. Brawley (Assoc Prof), a lecturer for Mu Alpha Theta, a national high school mathematics club, delivered a talk to mathematics students at Woodmont High School in Piedmont, S. C.

Dr. Brawley will be associated with N. C. State University as a Visiting Associate Professor of Mathematics during his sabbatical leave during the 1971-72 academic year. During his leave, he will be involved in research projects with Professor Leonard Carlitz of Duke University and Professor Jack Levine of N. C. State University.

J. V. Brawley and Renu Laskar (Assoc Prof) have been awarded postdoctoral positions in the Combinatorial Theory Advanced Science Seminar to be held at Bowdoin College in Brunswick, Maine from June 22 to Aug. 12. The Seminar, which is funded by the National Science Foundation, will bring together science research mathematicians, postdoctoral students active in research, and advanced graduate students from Ph.D. granting institutions for a period of concentrated work and idea exchanging. Clemson will also be represented by graduate students Arthur and Carolyn Pellerin.

SOCIAL SCIENCES

Martin Slann (Asst Prof) gave a paper, "The Methodology of Political Elite Analysis: A Preliminary Overview" at the annual meeting of the S. C. Political Science Association at Presbyterian College, Apr. 24. He was also elected Vice-President of the Association.

W. C. Capel (Asst Prof) and Bernard Caffrey (Assoc Prof) presented a paper, "Grit and Steel: A Study of Deviance Reflected in the Attitudes of Cockfighters, Devotees of a Stigmatized Sport," at the annual meeting of the Southern Sociological Association, Miami Beach, Fla., May 6-8.

H. E. Albert (Asst Prof) has reviewed Solomon Holt's Dictionary of American Government, in Choice VIII. (April, 1971).

TEXTILE DEPARTMENT

E. S. Olson (Assoc Prof) was presented a Certificate of Service commending him for contributions made to the Association's research and technical program during his term as Chairman of the Flock Testing Committee at the April 30 meeting of the American Association of Textile Chemists and Colorists held at Research Triangle Park, N. C.

On Mar. 29-Apr. 2, the American Chemical Society Meeting was held in Los Angeles, Calif. R. H. Barker (Assoc Prof) chaired one session of the general papers in the Division of Cellulose, Wood and Fiber Chemistry, and participated in the meeting of the Advisory Committee for the Division of Organic Coatings and Plastics Chemistry and the program committee of the Division of Cellulose, Wood and Fiber Chemistry.

C. W. Roberts (Assoc Prof) attended the American Chemical Society meeting in Los Angeles where he served as Chairman of the Organic Coatings and Plastics Chemistry Division and Member of the Advisory Committee of the same Division. He also serves as temporary alternate Councilor for the Western Carolinas Section of the American Chemical Society.

CLEMSON UNIVERSITY AT SUMTER

Porter H. Adams, Jr. (Instr) has been awarded a fellowship grant to attend the National Foundation Summer Institute in Economics at the University of South Carolina from June 7 to July

CALENDAR OF CAMPUS EVENTS

May	15	Sat.	Baseball - at Virginia Tech.
May	16	Sun.	Baseball - at Virginia Tech.
May	18	Tues.	Summer session classes begin.

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MAY 31 1971

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 20

CLEMSON UNIVERSITY LIBRARY June 1, 1971
SOUTH CAROLINA ROOM

BROWN ROOM OPENS IN UNIVERSITY LIBRARY

A special room containing personal mementos, furniture, and other memorabilia in the life of veteran State Sen. Edgar A. Brown of Barnwell has opened in the Robert Muldrow Cooper Library.

Brown spoke briefly at the opening of the room. "My simple prayer at the moment is that some of the plaudits which have been heaped upon me today are well-founded," he said. The Senator said that of all the services he has rendered in South Carolina, "there is nothing I feel will be more lasting than what I have tried to contribute to Clemson."

The Senator's fellow Clemson trustees urged him to leave the collection to the university in a 1969 resolution. (Continued on page 2.)



BROWN ROOM OPENED -- S.C. Sen. Edgar A. Brown (center) talks with President Edwards during opening ceremonies May 6 of the Edgar A. Brown Room in R.M. Cooper Library. At right is a bronze bust of the senator by sculptor Julian H. Harris.

BROWN ROOM OPENS IN UNIVERSITY LIBRARY Continued

President Robert C. Edwards said the Brown gift represents "a storehouse of knowledge about the middle years of the twentieth century, particularly as they were lived in South Carolina, in this region, and in this nation."

Edwards said the collection assures that many can come to know a remarkable South Carolina statesman through study and examination of the items related to his lifetime.

FACULTY PROMOTIONS ANNOUNCED FOR 1971-72

Fifty-seven members of the teaching and research faculties were promoted in rank for the year 1971-72. Of these, twelve associate professors became professors; thirty-six assistant professors became associate professors, and nine instructors became assistant professors.

COLLEGE OF AGRICULTURE AND BIOLOGICAL SCIENCES: promoted to Assistant Professor - C.R. Dillon and B.R. Ingram; promoted to Associate Professor - Ann W. Baxter, N.D. Camper, W.D. Graham, J.C. Hite, W.E. Johnston, J.E. Jones, J.S. Lytle, G.D. O'Dell, T.E. Skelton, W.K. Willard, J.R. Woodruff; promoted to Professor - J.R. Hill, Jr. and S.G. Turnipseed.

COLLEGE OF ARCHITECTURE: promoted to Associate Professor - K.E. Carpenter.

COLLEGE OF EDUCATION: promoted to Assistant Professor - Elizabeth B. Galloway; promoted to Associate Professor - J.P. Crouch and J.A. Hash; promoted to Professor - E.T. Carpenter and M.A. Packer.

COLLEGE OF ENGINEERING: promoted to Associate Professor - J.T. Craig and D.B. Stafford; promoted to Professor - W.B. Barlage, D.F. Bruley, and J.T. Ligon.

COLLEGE OF FOREST AND RECREATION RESOURCES: promoted to Associate Professor - G.E. Howard and C.L. Lane.

COLLEGE OF INDUSTRIAL MANAGEMENT & TEXTILE SCIENCE: promoted to Associate Professor - Susan H. Brown.

COLLEGE OF LIBERAL ARTS: promoted to Assistant Professor - R.F. Barton, J.D. Blanche and B.G. Durham; promoted to Associate Professor - S.N. Cole, G.J. Fernandez, Patricia K. Hill, W.H. Owens, J.V. Reel, Corrinne H. Sawyer, M.O. Usrey, Patricia W. Wannamaker and E.P. Willey.

COLLEGE OF LIBERAL ARTS: promoted to Professor - Harriet R. Holman.

SCHOOL OF NURSING: promoted to Assistant Professor - Harriett E. Whitley.

COLLEGE OF PHYSICAL AND MATHEMATICAL SCIENCES: promoted to Associate Professor - R.H. Bailey, A.S. Cover, J.D. Fulton, J.F. Geldard, G.M. Haselton, D.R. Latorre, J.R. Ray, J.A. Reneke; promoted to Professor - J.C. Fanning, H.W. Graben, R.E. Haymond, and G.B. Savitsky.

CLEMSON UNIVERSITY AT SUMTER: promoted to Assistant Professor - J.J. Doyle and W.T. Walker.

FACULTY, STAFF RETIREMENTS

A total of some three centuries of service to the University ends this summer with the retirement of 17 faculty and staff members. Retiring faculty members and their years at Clemson are Frank P. Morris, architecture lecturer, seven years; and Joseph W. Wells, associate professor of architecture, six years.

Retiring staff members, all of Clemson, and their years are N. Roy Boggs, supervisor of central stores, 43; K.R. "Sarge" Helton, budget director, 35; and Mrs. Lucille K. Corley, head resident, women's dormitories, six years.

Physical Plant employes retiring are Levi T. Smith of Seneca, cabinet shop foreman, 31; four Pendleton residents, J.C. Beatty, light equipment operator, 24; Matthew Gambrell Sr., janitor, 20; Earl Maddox, janitor, 13; Clarence E. Owens, janitor, nine years; and from Central the Rev. Odis D. Benson Sr., janitor, 12.

Retiring from positions at the Clemson House are Clemson residents Mrs. Lois L. Lembcke, cashier, five years; Douglas E. Harbin, cook, 19; Mrs. Corrie Ethel Collins, maid, eight years; and from Central, Mrs. Emma K. Ligon, maid, 21.

Also retiring after 21 years are Miss Ethel Callas of Clemson, library technical assistant; and after nine years Olas H. Chastain of Pendleton, stock room clerk.

WARE RETIRES; RECEIVES EMERITUS TITLE

Robert E. Ware, who retired May 13 after 41 years at Clemson, was awarded the title of associate professor emeritus of zoology at special faculty ceremonies May 6. Ware is a native of Centerville, Iowa, and a graduate ('29) of Iowa Wesleyan College.

ADMISSIONS AND REGISTRATION

Kenneth N. Vickery (Dean) was appointed president of the American Association of College Registrars and Admissions Officers during the annual convention of collegiate registrars held in St. Louis, Mo., Apr. 30.

As president of AACRAO, he will be responsible for making decisions and establishing policy beneficial to the more than 5,000 member organizations throughout the nation.

GRADUATE COUNCIL MINUTES, MAY 5, 1971

The Graduate Council met in Tillman Hall, Room 21, May 5, 1971, at 3:00 p.m. Members of the Council present for this meeting were: Dean A. E. Schwartz, Dr. R. M. Allen, Dr. C. W. Bolen, Dr. H. W. Graben, Mr. V. S. Hodges, Dr. G. D. Riggs, Mrs. Gayle Sawyer, Dr. A. S. Tombes, Mr. Larry Vick, and Dr. J. S. Wolf. Dr. L. C. Wilcox, Dr. C. R. Smith and Dr. N. D. Camper were visitors.

Absent were Dr. W. C. Godley and Dr. A.K. Jensen.

1. A motion was made that the minutes of the April 2 meeting be accepted. Two changes were made concerning the recommendation offered by Dr. Graben concerning language policy:

- 1) Item one concerning a broadening area should be accepted as information only.
- 2) During the discussion on the minutes of the last meeting a motion was made and passed by voice vote that the results of language examinations should be based on the percentile scores and not raw scores.

With the above changes, the April 2, 1971 Council minutes were accepted.

2. The following courses were accepted:

Computer Science 621 - Introduction to Assembler Language Programming
Computer Science 622 - Advanced Assembler Language Programming
Computer Science 623 - Fundamentals of Software Design

3. The list of candidates for May 1971 graduation was approved.

4. The following motion was made by Dr. Riggs:

"The Graduate Council reiterates its approval on May 8, 1970, as major areas of study for the Ph.D. and M.S. in Systems Engineering the following:

Control Theory
Computer Systems
Signal Processing
Switching Circuits and Automata
Optimization Theory
Environmental and Living Systems Engineering
Environmental Systems and Human Engineering
Computer System Design
Traffic and Transportation Systems
Construction Management Systems
Structural Systems

Other major areas of study must be approved by the Graduate Council."

A change to the motion was accepted that the word "approved" be replaced with "reviewed." This motion passed by an 8 to 1 vote.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. J. Lanham (Prof and Head) and J. F. Pittman (Prin Ext Spec Mktg) participated in the National Agricultural Marketing Conference at Denver, Colo., Apr. 27-29. Dr. Lanham chaired a session on Export Marketing - Cotton and Tobacco and Dr. Pittman was panelist in a session on Fruit and Vegetable Marketing.

ENVIRONMENTAL SYSTEMS ENGINEERING

Who Is Responsible for Clean Water? - This was the theme of an environmental control workshop for fifty municipal and county officials held on May 11 in Charleston. The workshop was sponsored by the Environmental Systems Engineering Dept. as part of a grant under Title I of the Higher Education Act of 1965. J. M. Glennon, Jr. (Sanitary Engineer) and J. H. Austin (Prof) assisted with the workshop.

More than 150 South Carolina Water and Wastewater Treatment Plant Operators attended the Operators' Short School, May 12-14, sponsored by the ESE Dept. and the S. C. Water and Pollution Control Association. Director of the school, which was designed to prepare operators for the State Certification Examination, was J. M. Glennon, Jr. Instructors for the classes were drawn from municipal water and wastewater treatment plants, several private engineering firms, and State pollution control agencies. The school was coordinated by R. A. Banister (Assoc Prof), Coordinator of Industrial and Municipal Relations for the College of Engineering.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

T. R. Adkins, Jr. (Prof) visited the Dept. of Entomology at the University of Kentucky in Lexington, Apr. 29-30 and served as guest speaker at the departmental seminar.

A grant-in-aid in the amount of \$500.00 has been received by Entomology and Economic Zoology from Hercules Chemical Company, Inc., for research with Torak for the control of peach, apple, pecan and ornamental insect pests.

INTERDISCIPLINARY STUDIES

S. F. Hulbert (Assoc Dean) presented a paper entitled "Ceramic Implants" at the Brookdale Symposium on New Concepts in Oral Implantology, Brooklyn, N. Y. on Apr. 25.

S. F. Hulbert, J. Per-Lee (Asst Prof of Surgery, Emory Medical University), B. Sauer (Asst Prof), R. Leonard (Post doc) and J. J. Klawitter (Asst Prof) presented a paper entitled "Use of Ceramics to Obliterate Mastoid Cavities" at the annual meeting of the American Ceramic Society, Chicago, Ill., Apr. 27. Dr. Hulbert and Dr. Klawitter also presented a paper entitled "Compatibility of Biocarbons with the Musculoskeletal System" at this meeting.

INTERDISCIPLINARY STUDIES (Continued)

S. F. Hulbert (Assoc Dean), C. C. Fain (Asst Prof) and M. J. Eitel (Assoc Prof) presented a paper entitled "Technique for Self-Disposal" at the National Solid Waste Resource Conference - Design of Consumer Containers, Columbus, Ohio on May 13.

S. F. Hulbert, J. J. Klawitter, B. W. Sauer, and H. R. Bungay (Prof) have received a two-year contract for \$85,000 from the Office of Naval Research to work on "Characterization of Tissue Ingrowth into Porous Bioceramics."

LANGUAGES

E. P. Arnold (Instr), B. G. Durham (Asst Prof), Hodges Lewis (Instr), R. R. McGregor (Asst Prof), Jo Ann McNatt (Asst Prof), Pedro Parrado (Asst Prof), and Anne Strader (Instr) attended the joint meetings of the South Carolina Council of Foreign Language Teachers (SCCFLT) and the State AASP, AATG, and AATF on Apr. 24 at the University of South Carolina. Prof. Arnold took part in a panel discussion at the SCCFLT session entitled "Candid Teacher-Student Discussion of Foreign Languages." He also demonstrated Language lab techniques for intermediate German students at the AATG meeting.

MATHEMATICS

John Kenelly (Prof and Head) representing the Mathematical Association of America and Clemson University visited Samford University, Birmingham, Ala. on Apr. 22 and delivered "Linear Optimization" at the Phi Mu Epsilon Banquet. On Apr. 23 he delivered an address entitled "Elementary and New Theorems in Convexity." The MAA visiting lecturer series is funded by the National Science Foundation.

Dr. Kenelly attended an invitational conference at Chicago, Ill. on May 1. The national conference was sponsored by the Mathematical Association of America's Committee on the Undergraduate Program in Mathematics. The conference subject was "Program for Helping Teaching Assistants and for Dealing with Large Numbers of Students." Dr. Kenelly's paper consisted of a description of the Department of Mathematics teaching assistant's program.

NURSING

Geraldine Labecki (Dean) addressed the Lower Savannah District Nurses' Association in Denmark, S. C. on Apr. 15. The topic of the address was "Continuing Education - A Challenge for the Professional Nurse."

Opal Hipps (Instr) participated in a meeting of the Southeastern Surgical Congress in Miami, Fla., Apr. 18-21.

Dean Labecki has been appointed a member of the Regional Advisory Group of the South Carolina Regional Medical Program.

NURSING (Continued)

Leon Roswal (Dir) participated in a meeting of the Associate Degree Directors in Columbia, Apr. 23.

Elizabeth Hall (Assoc Prof) and Regina Thompson (Asst Prof) participated in the meeting of the National League for Nursing in Dallas, Tex., May 8-14.

PHYSICS

C. W. Ulbrich (Asst Prof) will spend six weeks this summer in St. Louis, Mo., working in a group directed by R. R. Braham, Jr., of the University of Chicago. The research being carried out by the group is part of an NSF sponsored, long-range effort to determine the effects of urbanization on the weather.

SOCIAL SCIENCES

G. S. Rent (Asst Prof) presented a paper with Clyda S. Rent and Travis J. Northcutt, Jr., of the Florida Board of Regents at the Medical Sociology section of the Southern Sociological Society meetings in Miami Beach, May 5-8. The paper was entitled "Behavioral Factors Related to the Onset of Cervical Cancer."

Bernard Caffrey (Assoc Prof) presented a paper "The Guabal Study of Community Medicine: Socio-psychological factors related to the use of Health Services in Columbia" at the meetings of the Society for Epidemiologic Research in Atlanta on May 22.

ZOOLOGY

W. K. Willard (Asst Prof) presented a paper at the Third National Symposium on Radioecology held at Oak Ridge, Tenn., May 10-13. The symposium was sponsored by the U.S.A.E.C., the Oak Ridge National Laboratory, and the Ecological Society of America, who will publish the proceedings.

CALENDAR OF CAMPUS EVENTS

June 8-	Tues.-	FFA Convention - campus.
June 10	Thurs.	
June 11-	Fri.-	Alumni Reunions.
June 13	Sun.	
June 11	Fri.	Alumni National Council and Clemson Foundation meetings at Clemson House.
June 12	Sat.	Alumni class meetings - General Assembly - Alumni Banquet.
June 13-	Sun.-	Tiger Basketball Camp - campus.
July 3	Sat.	

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CLEMSON

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NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 21

June 15, 1971

NEW FIVE-YEAR PROGRAM IN MEDICINE TO BEGIN WITH SECOND SUMMER SESSION

The University and the Medical University of South Carolina have launched a new program which leads to a Doctor of Medicine degree after five calendar years of study.

The joint curriculum in medicine is designed as a means of increasing the supply of medical doctors in South Carolina during this decade by shortening the periods of pre-medical and medical training.

For admission to the program a student must have graduated in the upper 25 per cent of his high school class and must have a predicted grade-point ratio (GPR) of at least 2.8.

Final admission depends on acceptance of each student by both institutions after a review of academic credentials and a personal interview in Charleston with officials of the College of Medicine.

Each student will spend 24 months at Clemson in a plan of study especially designed for the individual's needs and capabilities. The University's portion of the program must be completed with at least a 3.0 GPR, with not less than a 2.8 GPR for any one semester.

Students then transfer to the Medical University to complete requirements for the M.D. degree within 36 months. Completion of the total program earns students a B.S. degree from the University and the M.D. degree from the Medical University.

UNIVERSITY JOINS WITH S.C. STATE COLLEGE AND CENTRAL WESLEYAN COLLEGE TO FORM COOPERATIVE NURSING PROGRAM

The University and S.C. State College at Orangeburg and Central Wesleyan College at Central are taking a cooperative step to help ease the severe shortage of professional nurses in the state.

Under a new arrangement, S.C. State and Central Wesleyan students can earn a bachelor's degree in nursing from Clemson. The program will be available at both colleges next fall.

The joint program was announced by President M. Maceo Nance Jr. of S.C. State, President Claude Rickman of Central Wesleyan, and President Robert C. Edwards.

UNIVERSITY JOINS WITH S.C. STATE COLLEGE AND CENTRAL WESLEYAN COLLEGE TO FORM COOPERATIVE NURSING PROGRAM Continued

Students will take two years of non-nursing subjects in a pre-nursing curriculum at S.C. State and Central Wesleyan, and then transfer to the University for the final two years. Successful completion of the four-year curriculum earns students a B.S. degree in nursing from Clemson.

UNIVERSITY GRANTS AND CONTRACTS TOTAL MORE THAN \$500,000 FOR APRIL AND MAY

The University received more than a half million dollars in grants and contracts during April and May.

The 15 grants will support a variety of research and educational projects, including development of new methods for treating textile wastes, new quality control tests for nationwide highway construction, and new ceramics to be used as bone replacements in re-constructive surgery.

The awards also include a \$90,000 professional training grant from the federal Environmental Protection Agency, to support the development of national training programs for water pollution control personnel.

R.F. POOLE ALUMNI SCHOLARS NAMED

Four superior high school students who graduated number one in their classes this month have been named R.F. Poole Alumni Scholars at the University where they will begin their freshman year in August.

Each of the four students will receive a \$1,000 scholarship renewable every year if scholastic achievement remains satisfactory, making the awards worth a total of \$16,000 over the four years.

South Carolina recipients, their high school, and planned academic major at the University are: Stanley Padgett, Spartanburg, Spartanburg High School, electrical engineering; Gary Ragan, Rock Hill, Rock Hill High School, mechanical or chemical engineering; and Elaine Beth Walsh, Tigerville, Blue Ridge High School, psychology or pre-medicine.

The fourth Poole Alumni scholar named is Bruce Watson Jr., Shreveport, La., who is also graduating first in his class. He plans to major in physics.

Since the program was initiated in 1958, Clemson alumni dollars have supported \$131,807 in Poole Alumni scholarships.

Scholarship alone is the determining factor in the selection of scholars to honor the memory of the University's seventh president, the late Dr. Robert Franklin Poole, who was chief administrator from 1940-58.

Ragan and Watson were also among the 121 high school seniors named by President Nixon as 1971 Presidential Scholars. Picked by a 10-member Commission, they are scheduled to visit the nation's capital to meet federal officials in late June.

TWO NEW DEGREE PROGRAMS TO BE OFFERED IN AUGUST

The University will offer a professional master of agriculture degree program with a major concentration in agricultural mechanization and a bachelor of science degree program in science teaching with a major concentration in earth science, each beginning in August.

The Department of Agricultural Engineering will administer the master's program in agriculture which will provide professional training in agricultural mechanization principles and procedures for recent agricultural graduates and to managers, consultants, and advisors of agri-business enterprises.

The Department of Elementary and Secondary Education will administer the bachelor's program, in cooperation with the Departments of Chemistry and Geology.

The new degree has been established primarily in response to the rapidly increasing need for qualified earth science teachers in junior high and high schools on the local, state, and regional levels.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

J. C. Hite (Asst Prof) and J. M. Stepp (Alumni Prof) are co-editors of Coastal Zone Resource Management, a multidisciplinary collection of papers dealing with environmental quality and marine resources.

J. C. Hite presented a seminar in the Environmental Resources Center, Georgia Tech on May 13. The title of the presentation was "An Economic-Ecologic Model for Coastal Zone Policy Decisions."

D. E. Crawford (Assoc Agri Economist) was awarded the "Service Above Self" award for contribution to the Clemson community by the local Rotary Club on May 24.

W. J. Lanham (Prof and Hd) served as program chairman of the session on "Tobacco Marketing, Manufacturing and Processing" at a conference on Social and Economic Issues Confronting the Tobacco Industry in the Seventies at the University of Kentucky, Lexington, Ky.

AGRICULTURAL ENGINEERING

T. H. Garner (Assoc Prof) and J. R. Lambert (Assoc Prof) are co-leaders for a project, along with C. E. Rieck (Asst Prof) and B. J. Gossett (Assoc Prof) of the Agronomy Dept., and B. K. Webb (Assoc Prof) entitled "Dynamic Modeling of Weed Control in Cotton Production." A grant of \$109,000 was received from Cooperative Research Service, USDA to conduct this study over a three-and-one-half year period.

CHEMISTRY

G. L. Powell (Asst Prof) has received a grant of \$18,200 from the National Science Foundation for the study of "Stringent and Relaxed Control of Phospholipid Synthesis."

Norma Golden (Grad Stu) presented a paper, "Amino Acid Dependent Control of Liquid Synthesis in Stringent and Relaxed Strains of Escherichia Coli," at the meeting of the South Carolina Branch of the American Society of Microbiology, Columbia, Apr. 23-24; G. L. Powell co-author.

DAIRY SCIENCE

W. V. Chalupa (Assoc Prof) presented a seminar at the University of Illinois on Mar. 3 and at Norwich Pharmaceutical Company on May 6. The title was "Urea Utilization by Ruminant Animals." Dr. Chalupa presented an invited paper "Metabolic Aspects of Nonprotein Nitrogen Utilization by Ruminant Animals" at the American Institute of Nutrition.

G. D. O'Dell (Asst Prof) presented a seminar entitled "The Effects of Divalent Cation Nickel in Ruminant Rations" at the University of Georgia on May 13

ENGINEERING MECHANICS

W. E. Castro (Assoc Prof) presented an invited paper titled "Blood Flow Turbulence Reduction Using High Polymers" at the annual ISA Flow Symposium, held this year in Pittsburgh, Pa., May 10-14.

R. W. Moorman (Prof and Hd) has been elected chairman of the Southeastern Group of the Association of Chairmen of Departments of Mechanics.

ENGLISH

Harriet Holman (Prof) has published an article, "John Fox, Jr., Appraisal and Self-Appraisal" in the spring issue of The Southern Library Journal.

ENVIRONMENTAL SYSTEMS ENGINEERING

Ronald Briggs, Senior Scientific Officer, Water Pollution Research Lab., Stevenage, England, presented a seminar on "Sensors for Measurement of Water Quality," on May 26.

J. F. Andrews (Prof and Hd) presented a seminar on "Operation and Maintenance of Wastewater Treatment Plants" at a workshop on Selection of Biological Processes for Industrial Waste Treatment, May 28 at North Carolina State University.

J. M. Glennon (Assoc Dir of Continuing Education) spoke to the Greenville Chamber of Commerce Pollution Control Sub-Committee on "Environmental Control Workshops for Municipal and County Officials" on May 28.

T. M. Keinath (Asst Prof) and A. R. Abernathy (Assoc Prof) were instructors at the seminar on "New Developments in Textile Waste Treatment" presented in the College of Industrial Management and Textile Science, May 31-June 4.

GEOLOGY

R. D. Hatcher (Assoc Prof) presented an invited paper, "Recent Trends in Thought and Research on Southern Appalachian Tectonics," as a contribution in the symposium on, "The Southeast as a Geographical Laboratory," at the meeting of the Southeastern Section of the Geological Society of America, Blacksburg, Va., May 5-8. Dr. Hatcher led a group of faculty and students from Memphis State University on an observational study of the geological features of the nearby Appalachians.

INTERDISCIPLINARY STUDIES

W. M. Sanders, Southeast Water Lab., Athens, Ga., H. R. Bungay, III (Prof), and W. J. Whalen, St. Vincent Charity Hospital, Cleveland, Ohio had an article published in Water-1970, Am. Inst. Chem. Engr. Symposium Series, entitled "Oxygen Microprobe Studies of Microbial Slime Films."

H. R. Bungay, III (Prof) presented a paper entitled "Models for Multi-component Ecosystems," at the Am. Inst. Chem. Engr. National Meeting in Cincinnati, Ohio, May 16-19. This paper was coauthored by M. J. B. Paynter (Assoc Prof and Hd), Microbiology.

L. G. Blackwell (Grad Stu) presented a paper entitled, "A Dynamic Model of the Activated Sludge Contact Stabilization Process" at the Am. Inst. Chem. Engr. National Meeting in Cincinnati, May 16-19. This paper was coauthored by H. R. Bungay (Prof).

MATHEMATICS

John Kenelly (Prof and Hd) spent May 11 at Pembroke State University, Pembroke, N. C. as a representative of the Mathematical Association of America Consultant's Bureau. Individuals on the 34 member bureau visit colleges and universities in order to review the mathematics curricula, discuss national reports and assess the local program. During the course of the visit, a lecture entitled "A Trio of Geometry Theorems" was presented.

SOCIAL SCIENCES

W. C. Capel (Asst Prof) is author of "Cognitive Dissonance, Reconstruction and Negro Civil Rights: Application of a Theory" in Journal of Human Relations, Spring 1971.

Roland Pippin (Sociology) has received a Faculty Basic Research Grant to do a demographic survey of South Carolina, 1960-1970; also, is acting as consulting sociologist with the Student Organized Studies, funded by the National Science Foundation and Clemson University, to study the mobility of the aged poor in the Greenville area.

Frank A. Burtner (Pre-professional Health) Chairman of the Association of Advisers to the Health Professions, Southern Region, took part in a symposium on premedical education sponsored by the National Health Council and held at the University of Illinois June 11-14.

CLEMSON UNIVERSITY AT SUMTER

S. Robert Collins (Asst Prof) has been awarded a fellowship grant to attend the National Science Foundation Summer Institute for College Teachers of Chemistry at Louisiana State University from June 7 to August 14.

BUSINESS AND FINANCE OFFICE

With the retirement of K.R. Helton (Budget Dir), two new assignments in the Business and Finance Office are now in effect.

Melvin E. Barnette, formerly Supervisor of Contract Accounts, has been assigned as Budget Director, and Alden L. McCracken, formerly an accountant in Accounting and Payroll, has been assigned as Supervisor of Contract Accounts.

Items pertaining to budgets will be referred directly to Mr. Barnette and items pertaining to grants and contracts will be referred to Mr. McCracken.

CALENDAR OF CAMPUS EVENTS

June 23	Wed.	Exams.
June 24	Thurs.	Exams.
June 28	Mon.	Orientation - new students.
June 30	Wed.	Summer session classes begin.



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CLEMSON

NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 22

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

July 1, 1971

BIOLOGICAL SCIENCES BECOME DEPARTMENTS IN NEW COLLEGE, HEADS NAMED

The University is on the threshold of the largest expansion ever of its biological sciences curricula.

On July 1, several major changes become effective to officially launch the long-range development program:

The biological sciences (biochemistry, botany, microbiology and zoology) assume departmental status and become part of the newly-created College of Physical, Mathematical and Biological Sciences.

Dr. Henry E. Vogel, whose appointment as dean of the new college is effective July 1, announces the naming of three University faculty members to head the new departments.

Dr. J.M. Shively, who held a postdoctoral appointment at the Johns Hopkins University Medical School before coming to the University last year, will administer the biochemistry department.

The new botany department will be headed by Dr. Clyde J. Umphlett who has published more than 20 research papers, mostly dealing with the biological control of mosquitoes by fungi.

A native of England, Dr. M.J.B. Paynter, will head the microbiology department. He was a postdoctoral fellow in the bacteriology department of the University of California for two years before accepting an appointment at the University in 1966.

A department head for the fourth new unit, zoology, will be named within a few weeks. All of the new departments were formerly sections within the Division of Biology of the College of Agriculture and Biological Sciences.

REUNION WEEKEND HIGHLY SUCCESSFUL

About 800 University alumni recently attended Clemson's 74th reunion weekend and celebration.

Members of 21 classes from more than 20 states and several foreign countries attended the reunion festivities, including about 25 returning members of the Class of 1921, which marked its Golden Anniversary.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 18, 1971

President C. H. Sawyer called the meeting to order at 4:17 p.m. The minutes of the meeting of April 13, 1971 were approved as distributed. President Sawyer introduced a number of replacement Senate Members: E. A. Freeman of the College of Liberal Arts will finish the term of B. F. Cook. For the summer months, replacements are as follows: W. B. Barlage of the Dept. of Chemical Engineering for W. F. Beckwith; R. C. Turner of the Dept. of Physics for F. J. Keller; and W. W. Pennscott of the Dept. of Elementary and Secondary Education for G. W. Gray. Sophie Sullivan was introduced as the newly elected representative from the Library. President Sawyer pointed out that B. J. Skelton will serve as Chairman of the Admissions and Scholarship Committee for the summer in the absence of F. J. Keller.

President Sawyer reported that she had attended the following meetings: the Curriculum Committee, the Educational Council, and the Vending Machine Committee. President Sawyer also attended a meeting between the Educational Policy and Student Affairs Committee of the Board of Trustees and student representatives wherein two requests were made by the students: one that the Student Government be given autonomy in social matters, a request looked on with disfavor by the Board of Trustees who stated that no person or group in the University system has such autonomy; and second, a request concerning limited visitation privileges in dormitories, wherein during certain hours every week members of the opposite sex would be allowed to visit. The latter request was promised a hearing by the Board of Trustees; the Committee members emphasized however, that flagrant violations of these privileges would result in their termination. President Sawyer pointed out that the term "open dorms," which is often used by the students, in fact refers only to the limited visitation stated above. President Sawyer also represented the Senate at the official opening of the Edgar A. Brown Room of the Library.

President Sawyer commented on the cordiality with which she has been received by the Administration. As a result of a meeting with Dean Hurst, President Sawyer reported that in the future the President of the Faculty Senate will speak to new faculty members during orientation and inform them as to the importance of the Faculty Senate and will have a trip to the five University Experiment Stations.

The appointment of J. E. Clark (Civil Engineering) to replace H. W. Graben (Physics) on the University Traffic and Parking Committee was announced.

The question of an alternate Senate member from the School of Nursing and the College of Forest and Recreation Resources was raised. Professor Godbout stated that no alternate had been elected, but that this would be done at the first meeting of the faculty of the School of Nursing. Whether or not an alternate has been elected from the College of Forest and Recreation Resources could not be determined at this time.

President Sawyer reported that Dean Hurst had suggested that the chairmen of the respective committees of the Faculty Senate read at least the last sections of the university-wide reports of the self-study and any of the college reports which would be of interest to them. She stated that Dean Hurst felt that the position of the Administration in implementing the suggestions made would be strengthened if the Faculty Senate were behind recommendations.

MINUTES OF THE MEETING OF THE FACULTY SENATE, MAY 18, 1971 (Continued)

President Sawyer requested that items of Senate business be given to her at least one week in advance of Senate meetings for distribution by campus mail. In addition, the Senate agreed that certain items of business could be referred directly to the appropriate committee rather than being brought first to the floor at regular Senate meetings.

Professor D. R. LaTorre moved that the 1970-1971 Report of Faculty Senate Activities read by Ex-President Prochaska at the meeting of the general faculty be printed in the Clemson Newsletter. The motion was seconded and passed by a unanimous voice vote. It was felt that an advantage of printing the report would be that it would inform the faculty, many of whom could not be present at the faculty meeting, as to the administrative response to the activities of the Senate.

Professor LaTorre also raised the question as to whether or not there was any word on the status of the revised Faculty Manual. President Sawyer replied that a single committee was presently considering the revision.

Professor N. D. Camper, Chairman of the Research Committee, reported that the following items would be their immediate concern:

1. Research overhead costs.
2. Attendance at professional meetings by members of the research faculty and teaching faculty.

Professor W. E. Castro, Chairman of the Welfare Committee, reported that the following matters would be their immediate concern:

1. Use of the University health facilities for giving faculty members physicals.
2. The possibility of running the University on a 12-month basis rather than on a 9-month basis.
3. At the request of the Senate, investigation of the possibility of emergency treatment for faculty members at the Redfern Health Center.
4. At the request of the Senate, investigation of the possibility of lunchtime mealtickets for faculty members.

There was no report from the Admissions and Scholarship Committee.

Professor John Hubbard, Chairman of the Policy Committee, reported that his committee members had been charged to familiarize themselves with the self-study reports.

The question of the "Forgivable F" was raised from the Senate floor. President Sawyer agreed to inquire further in the matter. Some concern on the part of Senate members about the present policy on the "Forgivable F" is still apparent.

The meeting adjourned at 4:53 p.m.

COLLEGE OF ARCHITECTURE

The Rudolph Lee Gallery and the College of Architecture have established a program of inter-University art lending, with the aim of circulating works from the College of Architecture's collection of paintings and prints to departments throughout the University for public display, enjoyment and education.

Each work that is offered for loan is framed and ready to hang. Installation of works will be made by our Gallery staff. It is required that departments participating in this program shall provide adequate hanging space with security against damage or theft. The time that a department may keep any work is limited to six months maximum.

Departments interested in participating in this program should contact Mike Holden, Curator, Rudolph Lee Gallery, College of Architecture, Lee Hall for additional information.

CIVIL ENGINEERING

J. E. Clark (Assoc Prof) was a participant in the South Carolina White House Conference on Aging in Columbia on May 19.

B. L. Edge (Asst Prof) participated in a shortcourse entitled "Advanced Mathematical Modeling of Natural Water Systems" at Manhattan College in New York, May 31 - June 3 on an EPA grant.

ELECTRICAL AND COMPUTER ENGINEERING

J. N. Thurston (Alumni Prof) served with Dean Ralph Fadum of N. C. State University as a team to evaluate the proposed Ph.D. program in Electrical Engineering at the Florida Institute of Technology, Melbourne, Fla. The visitation was on June 2-4.

W. J. Barnett (Grad Stu), L. C. Wilcox (Hd) and R. W. Snelsire (Assoc Prof) presented a paper, "A Simulation of the Electroencephalographer's Pattern Recognition Process," at the 69th National Meeting of the American Institute of Chemical Engineers, Cincinnati, Ohio, May 16-19.

M. L. Wolla (Assoc Prof), L. C. Wilcox (Hd), and B. E. Gilliland (Assoc Prof) presented a paper, "Computer Modeling of Frog Neuromuscular Response" at the 69th National Meeting of the American Institute of Chemical Engineers, Cincinnati, Ohio, May 16-19.

ENGINEERING SERVICES

B. E. Dunkle (Assoc Prof) has been selected to attend the University of Tennessee Space Institute National Science Foundation supported "Systems Oriented Workshop on Air Transportation" to be held June 21 - July 17 at the Tullahoma campus. Professor Dunkle has also been selected to attend a seminar at the University of North Carolina National Science Foundation supported "Short Course in Electronics" from July 17 - August 6 at Chapel Hill.

ENGLISH

R. J. Calhoun (Alumni Prof) has published an article, "'His Reason Argues with His Invention' -- James Dickey's Self-Interviews and The Eye Beaters" in the current issue of The South Carolina Review.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. H. Austin (Prof) co-authored a paper delivered at the annual meeting of the American Water Works Association entitled "Systems Approach to Training and Licensing of Water Works Personnel in Ontario." He co-authored a paper published in the May 1971 issue of the Ontario Pipeline entitled "Training and Certification of Water Works Personnel."

FOOD SCIENCE

The County and District School Food Service Supervisors' Workshop was held at Clemson May 17-21 with members of the Food Science faculty participating in the program on May 18. The following topics were discussed: "Nutritive Value of Food" - J. J. Jen (Asst Prof). "Food Safety - Preventing Food-Borne Illnesses" M. G. Johnson (Asst Prof). "Effects of Food Preparation on Nutritive Value" - J. C. Acton (Asst Prof). "Effects of Storage on Food Quality" - J. H. Mitchell, Jr. (Prof).

M. G. Johnson presented a paper entitled "Lipoic Acid Synthesis by Streptococcus faecalis 10C1" at the annual meeting of the American Society for Microbiology at Minneapolis, Minn., May 2-7.

D. M. Henricks (Assoc Prof) attended the Symposium on Immunoreproduction and Annual Meeting of the Society for Study of Reproduction and presented a paper entitled "Plasma Estrogen and Progesterone Levels in Cycling and Pregnant Beef Heifers." These meetings were held in Boston, Mass., June 28-July 1.

FORESTRY

R. E. Schoenike (Assoc Prof) presented a paper entitled "Evaluation of the 24-year-Old Table Rock (S. C.) chestnut plot for growth and disease resistance" at the 11th Biennial Meeting of the Southern Forest Tree Improvement Conference in Atlanta, Ga., June 15-16. The paper was co-authored by W. Witcher (Prof), Plant Pathology and C. R. Nichols of the S. C. State Commission of Forestry.

INTERDISCIPLINARY STUDIES

H. R. Bungay, III (Prof) had a short note "Remote Interactive Teaching Without TV" in the June issue of ERM, a publication of the American Society for Engineering Education.

MATHEMATICS

John Kenelly (Prof and Hd) has been invited to serve an additional term as a visiting lecturer for the Mathematical Association of America during the academic year 1971-1972. The Visiting Lecturer Program is funded by the National Science Program and sponsored by the Mathematical Association of America.

Andrew Sobczyk (S Maner Martin Prof) participated by invitation in two specialized conferences, one on Functional Analysis, June 15-19 at Louisiana State University, Baton Rouge, and the other on Combinatorial Geometry and Convexity, June 21-25 at University of Oklahoma. He gave an invited address at each, respectively, on "The Separable Extension Property" and "Obliquity, Obtusity, and Families of Flats."

SCHOOL OF NURSING

Geraldine Labecki (Dean) has been selected to serve as a member of the Regional Advisory Group, South Carolina Regional Medical Program.

Members of the Regional Advisory Group and its committees guide and supervise all programs, projects, and activities of the Regional Medical Program in the state.

SOCIAL SCIENCES

H. E. Albert (Asst Prof) has the review of American Federalism, Richard H. Leach, in the new issue of Choice, Vol. 8, May 1971, p. 473.

ZOOLOGY

A. S. Tombes (Assoc Prof) authored a paper entitled: "Sexual dimorphism in Sitophilus granarius (L.) as viewed in the scanning electron microscope" which was recently published in the Canadian Journal of Zoology (1971).

A. S. Tombes and Byron R. Ingram (Asst Prof) have received a research project funded by the Water Resources Research Institute entitled: "The Ecological Effects of Thermal Stress on Certain Neuroendocrine Physiological Systems of Selected Aquatic Animals." The first year of the project is budgeted at \$10,000.

A. S. Tombes will spend a year in the Laboratory of Animal Physiology at the University of Lille, France, studying invertebrate endocrinology. This year is partially funded by a research fellowship from the French Ministry of Industrial and Scientific Development.

B. R. Ingram gave a seminar at the University of North Carolina at Chapel Hill, entitled, "Seasonal Ecology of Two Species of Damsel Flies" on May 27.

ZOOLOGY Continued

Sidney Gauthreaux (Asst Prof) has recently published a paper "Nocturnal Songbird Migration" in the journal Nature.

Sidney Gauthreaux (Asst Prof) presented a paper "Behavioral Responses of Migrating Birds to Daylight and Darkness: A Direct Visual and Radar Study" at a Symposium on Bird Migration in the Region of the Gulf of Mexico held during the annual meeting of the Wilson Ornithological Society at Dauphin Island, Ala.

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CLEMSON NEWSLETTER

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Vol. 10 No. 23 CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

July 15, 1971

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FIRST IN NEW PROGRAM -- President Robert C. Edwards, center, is flanked by the select group of recent high school graduates who are the first students to enroll in the new five-year curriculum in medicine just begun by the University and the Medical University of South Carolina to increase the supply of medical doctors in the state. The new Clemson freshmen, who began studies in second summer session June 30, are, left to right: Tim Youell, Hendersonville, N.C.; Milan Schmidt, Charleston; Bill Wilson, Columbia; Eva Singletary, Rt. 1, Coward; Paulette Thompson, Rt. 1, McBee; Stanley Ulmer, Greenville; Kirk Johnson, Darlington.

AGRICULTURAL ECONOMICS

V.A. Boyd (Assoc Prof) attended the South Carolina White House Conference on Aging in Columbia May 19 and participated in the section on Spiritual Well-Being of the Aging.

V.A. Boyd and E.L. McLean (Asst Prof) attended the annual meeting of the Southern Rural Sociology Research Committee in Atlanta, June 13-15. Professor Boyd was elected Secretary of the Committee.

V.A. Boyd was discussion leader in a workshop in Training of Church and Community Leaders in Older Adult Ministry at Columbia College, June 15-16.

J.C. Hite (Asst Prof) visited with the staff and presented a seminar at the University of Georgia Marine Research Institute at Sapelo Island, Georgia on June 7-8.

ELECTRICAL AND COMPUTER ENGINEERING

B.E. Gilliland (Assoc Prof) has been selected as a technical paper reviewer for the IEEE Control Systems society. Dr. Gilliland has been asked to evaluate papers in the areas of direct digital computer control and social and environmental systems.

T.L. Drake (Assoc Prof) and M.L. Wolla (Assoc Prof) presented a paper entitled "Laboratory Studies in Real-Time Computation" at the 79th annual conference of the American Society for Engineering Education, June 23 in Annapolis, Md.

ENVIRONMENTAL SYSTEMS ENGINEERING

J.H. Austin (Prof) represented the American Association of Professors in Sanitary Engineering at the annual meeting of the American Association of Engineering Education at Annapolis, Md. on June 23-26.

J.H. Austin (Prof) and Jim Glennon (Assoc Dir of Continuing Education) directed the fourth in a series of ten workshops entitled "Environmental Control Workshops for Municipal and County Officials," at Midlands TEC on June 29.

B.C. Dysart, III (Assoc Prof) was invited to participate in the "Water Resources Systems Conference" June 3-4. The meeting was held at Belmont near Baltimore.

ENGLISH

Harriet Holman (Prof) has an article, "What Did Mill Mean to Poe?" in the Current issue of The Mill News Letter.

MATHEMATICS

P.T. Holmes (Assoc Prof) and K.T. Wallenius (Assoc Prof) attended a one-week symposium on Statistical Communication Theory and Signal Analysis co-sponsored

MATHEMATICS Continued

by the Office of Naval Research and the Naval Research Laboratory in Washington, D.C., on June 14-18. Dr. Holmes presented an invited address on "Semi-Markov Models in Detection and Evasion." Dr. Wallenius presented an invited address on "Identity Maintenance Tracking."

MECHANICAL ENGINEERING

Clemson University was selected to host the 1973 meeting of the Southeastern Seminar in Thermal Sciences at the meeting held Apr. 26-27 at Tennessee Technological University in Cookeville, Tenn.

C.A. Brandon (Assoc Prof) and T.A. Grizzle (Grad Stu) are co-authors of a paper "Test of Similarity Variable for Dilute Fluid-Solid Heat Transfer" to be presented at the International Symposium on Two-Phase Systems to be held Aug. 29-Sept. 2 in Haifa, Israel.

C.A. Brandon (Assoc Prof) is co-author of a paper, "Hyperfiltration XX. Processing of Textile Dyeing Wastes with Dynamically Formed Membranes," accepted for publication in the Water Pollution Control Federation Journal.

E.F. Cox (Assoc Prof) participated in a short course "Fluid Physics of Pollution" held June 19-20 at Palo Alto, Calif.

T.C. Hardin (Prof) has been selected for listing in Who's Who in America, Volume 37.

Tah-teh Yang (Prof) and J.S. Tennant (Post Doct Res Assoc) participated in a specialists conference on Fluid Dynamics of Unsteady, Three-Dimensional and Separated Flow. The conference was sponsored by Project Squid, Office of Naval Research, held at Georgia Institute of Technology, June 10-11. Dr. Yang presented a discussion on "Design Concept of Unseparated Short Diffusers" that will be published in the proceedings of the conference.

PHYSICS

D.P. Miller (Assoc Prof) has received a sabbatical year cooperative appointment for the 1971-72 academic year as senior resident research associate with the Agricultural Research Service U.S.D.A. He will spend the year in residence at the Southern Utilization Research and Development Division, New Orleans, La., engaged in Nuclear Magnetic Resonance Studies of surface interactions of cellulose with various reactants.

CLEMSON UNIVERSITY AT GREENVILLE

Alberta Grimes (Instr - Education) was an invited participant at the Southern States Work Conference held at Daytona Beach, Fla., June 14-18.

July 15, 1971

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CALENDAR OF CAMPUS EVENTS

July 20-	Tues.-	State 4-H Convention - campus.
July 23	Fri.	
July 28-	Wed.-	Southern Research Conference in Agricultural Edu-
July 30	Fri.	cation at Clemson House.
July 31	Sat.	Classes meet today

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room 28, Tillman Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON NEWSLETTER

INFORMATION FOR THE STAFF OF CLEMSON UNIVERSITY

Vol. 10 No. 24

JUL 30 1971

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

August 1, 1971

ACTION BY BOARD OF TRUSTEES

At its June 30th meeting, the Board of Trustees approved a residence hall visitation program in principle, subject to these conditions:

(a) The Administration will provide the broad guidelines for implementation and control of the program.

(b) Limited visitation will be permitted in residence hall units or other small units within residence halls as established by the Administration where a minimum of two-thirds of the occupants of the unit approve the program. Students under twenty-one (21) years of age will be required to have written parental consent to participate in the program.

(c) There will be residence halls where limited visitation privileges are not authorized as well as those where the program is in effect. Students assigned to residence halls whose visitation policy is not consistent with their individual preferences will be assigned to other residence halls compatible with their desires.

(d) Residence hall councils will be established by the Student Government. The residence hall councils, the Student Senate, and the judicial branch of Student Government shall supervise the implementation and operation of the visitation program within the framework authorized by the Administration.

(e) The Administration will terminate the visitation program if the Student Government fails to discharge its responsibilities in administering the program and/or if the program is determined by the Administration not to be in the best interest of the University.

The Administration feels a residence hall visitation program would give Student Government an opportunity and responsibility to control the student life program in the residence halls, and it would hopefully improve communications between the Office of Student Affairs and the Student Government in working out student life programs and problems.

In other action the Board approved:

-- effective July 1, 1971, the College of Agriculture and Biological Sciences be redesignated the College of Agricultural Sciences.

-- an increase in student medical fees from \$25 to \$35 per semester, effective the first semester of the academic year 1971-72, and an increase in student medical fees for the summer session beginning the first session of summer school 1971, on a weekly basis proportionate to the semester charge.

ACTION BY BOARD OF TRUSTEES Continued

-- effective July 1, 1971, the following departments be established in the College of Architecture: Department of Architecture; Department of Building Science; Department of Planning Studies; Department of History and Visual Studies.

-- effective July 1, 1971, the name, Department of Mathematics, be changed to Department of Mathematical Sciences in the College of Physical, Mathematical and Biological Sciences.

TURNER JOINS ALUMNI ASSOCIATION STAFF

Joseph J. Turner Jr. of Williston, a 1971 Clemson graduate, has joined the Clemson Alumni Association staff as alumni field representative. In his assignment, Turner will assist in the development of the Alumni Loyalty Fund, a program designed to enhance Clemson's educational capability, and in the organization and activity of area alumni clubs throughout the state.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 8, 1971

President Sawyer called the meeting to order at 4:15 p.m. The minutes of the meeting of May 18, 1971 were approved as circulated.

President Sawyer reported that the Student Grievance Committee, to be known as the Student Relations Committee, has been established. It is to be implemented on a one-year trial basis, and after the first year of operation the Senate may decide to extend the trial period for a second year, renew the committee permanently, or dissolve it. The Committee will be asked to deal specifically with the complaints against the faculty, the definition of faculty being that found in the faculty manual.

At the request of the Senate, President Sawyer listed the names of members of the committee studying the proposed faculty manual. President Sawyer reported on the progress of the committee, and added, in response to a question from the floor, that the amended manual would come back to the Senate for approval before implementation.

On the matter of the "Forgiveable F," President Sawyer reported that the Administration has expressed a willingness to work with the Senate in making changes which it wished in the present system, which is generally unworkable. President Sawyer pointed out that the present procedure for handling the "Forgiveable F" was the result of limitations in the computer. By the spring semester of 1972, there will be a computer which has memory capability and at that time there will be a number of alternatives open to the Senate: to leave the policy as it is; to alter the policy, a possible alteration being that the "Forgiveable F" apply only in cases where the student is continuously enrolled; or to kill the policy entirely. The problem was turned over to the Admissions and Scholarship Committee for study and recommendations. Further items for the Admissions and Scholarship Committee will include the present pass-fail system; and investigation of methods for simplifying the procedure for dropping students from class for unexcused absences.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 8, 1971 Continued

There were no reports from the Policy Committee, from the Admissions and Scholarship Committee, or the Research Committee.

Professor W. E. Castro reported that the Welfare Committee had inquired as to the possibility of obtaining noontime meal tickets for faculty members. Mr. Henry Hill, Director of Auxiliary Enterprises, has expressed the feeling that it might not be worth the administrative effort for implementation due to lack of any real savings to the faculty over the individual meal price and because of lack of demand by the faculty. The 32 Senate members present were polled as a sample of the faculty at large; eight expressed an interest in buying such tickets. On the supposition that 25% might be representative, the committee agreed to investigate the matter further.

Concerning the acquisition of medical services for faculty members at the Redfern Health Center, it was reported that Professor W. E. Johnston of the Welfare Committee had discussed the matter with Dr. Hair, who was described as enthusiastic but not overly optimistic, since the facility had been set up for students. He suggested that the committee look at what was being done at other universities and pinpoint the exact services which would be desired. A questionnaire was presented to Senators to help determine the desirability and feasibility of various health services which might be provided by the University for its faculty and staff.

Professor J. C. Fanning of the Welfare Committee moved the adoption of a resolution dealing with control of severe traffic problems on the campus. Professor Hodges moved to amend the motion to include the intersection of Jersey Lane and Palmetto Blvd. This was seconded and passed by a unanimous voice vote. Professor E. B. Rogers moved to delete from the original motion the words "four-way stop signs, etc." Following a discussion of the desirability of 4-way stops, the motion was defeated by a vote of 15 to 14. Professor D. R. LaTorre moved to amend the original motion to call for a stop light at the intersection of the Perimeter Road and Cherry Road. The motion passed by a voice vote. The original motion as amended read as follows:

Traffic control devices, such as stoplights, four-way stop signs, etc., be placed at the following intersections:

- (a) South Palmetto Blvd. and Fernow Street
- (b) South Palmetto Blvd. and Cherry Road
- (c) Calhoun Drive and Highway 93
- (d) Fort Hill Street and Williamson Road
- (e) South Palmetto Blvd. and Jersey Lane

The faculty and student body be made aware of the recent addition to the Clemson University Traffic Code of paragraph 4-7, dealing with the right-of-way in cross-walks, by publishing this paragraph in the Clemson Newsletter and The Tiger.

A stoplight be placed at the intersection of the Perimeter Road and Cherry Road.

MINUTES OF THE MEETING OF THE FACULTY SENATE Continued

Professor Gordon Gray was appointed as the Senate's representative on the Faculty-Student Relations Committee by acclamation.

Professor K. Lehotsky, who is retiring from Clemson University and was attending his last Senate meeting in an official capacity, made parting suggestions as follows: that the Senate consider a new meeting time for spring semester of 1972; that proposed resolutions be distributed early so that Senators could discuss with their constituents the matters which are to come to the Senate floor. President Sawyer expressed the Senate's gratitude to him for his work as a Senator.

Professor W. E. Johnston pointed out to the Senate that so far the only self-study reports which are available in the Library are the departmental and college reports; senators will be delayed in reading over these reports.

The meeting was adjourned at 5:26 p.m.

Absentees represented by official summer replacements:

Member - F. J. Keller. Replacement - R. C. Turner.

Also absent were: J. A. Hash; W. B. Barlage (for W. F. Beckwith); E. A. Vaughn.

ADMINISTRATION

President Robert C. Edwards was guest speaker at graduation exercises for the 2d Battalion, 1st Basic Combat Training Brigade at Fort Jackson on July 22. He also presented the American Spirit Honor Medal to the Outstanding Trainee.

ANIMAL SCIENCE

The departments of Animal Science and Food Science have received a grant from Syntex Corporation, Stanford Industrial Park, Palo Alto, Calif., to support research investigating the role of multiple births in beef cattle. The amount of the grant is \$750.

The Animal Science department has received a grant in the amount of \$3,000 from S. C. Pork Board to support swine nutrition experiments.

CHEMICAL ENGINEERING

D. F. Bruley (Prof) presented a paper at the 69th National meeting of the American Institute of Chemical Engineers, Cincinnati, Ohio, May 16-19. "On-Line Computer Simulation of Oxygen Response in Brain During Anoxic-Anoxia and Hypoglycemia" by D. F. Bruley, M. H. Knisely, D. D. Reneau, H. I. Bicher and W. R. Reardon.

W. B. Barlage (Prof) has received a two-year grant of \$33,800 from the National Science Foundation for the "Determination of Diffusion Coefficients of Gases in Non-Newtonian Fluids Under Conditions of Known Shear Rate."

CHEMICAL ENGINEERING Continued

D. F. Bruley has had the following papers published: "Dynamics of Tissue Oxygen Supply During Circulatory Failure - A Mathematical Analysis Using Monte-Carlo Techniques" Proceedings of the 6th Europ. Conf. Microcirculation, Karger, Basel, pp. 193-196 (1971), by D. F. Bruley, H. I. Bicher, D. D. Reneau and M. H. Knisely.

"Effect of Intravascular Red Cell Aggregation and its Counteraction by Anti Adhesive Drugs on Brain Tissue Oxygenation," Proceedings of the 6th Europ. Conf. Microcirculation, Karger, Basel, pp. 68-75 (1971), by H. I. Bicher, D. F. Bruley, D. D. Reneau and M. H. Knisely.

CIVIL ENGINEERING

B. L. Edge (Asst Prof) received a grant to participate in a one-week course at MIT on "Engineering Aspects of Heat Disposal from Power Generation" June 28-July 2.

H. W. Busching (Assoc Prof and Hd) was funded by the NSF to attend a short course entitled "Engineering and the Technological Society" June 13-20 in Athens, Ohio.

William Baron (Assoc Prof) received an NSF grant to participate in a six-week short course entitled "Physical Chemical Properties of Soils" in Tucson, Ariz., June 28-Aug. 9.

F. L. Roberts (Asst Prof) received an NSF grant to participate in a short course entitled "Use of Probability and Statistics in Civil Engineering," July 11-30 in Stanford, Calif.

H. W. Busching was a speaker at the housing conference sponsored by the Berkeley-Charleston-Dorchester Regional Planning Commission June 29 in Charleston.

J. E. Clark (Assoc Prof) was funded by the University of Tennessee Space Institute to attend the Air Transportation Workshop June 20-July 17 in Tullahoma, Tenn.

B. L. Edge participated in a special NSF sponsored summer program in Ocean Engineering at the University of Rhode Island July 19-30 in Kingston, R.I.

ECONOMICS

B. R. Skelton (Assoc Prof) has been named to serve as an arbitrator in labor disputes by the Federal Mediation and Conciliation Service, a U.S. Government Agency, and by the American Arbitration Association, New York City.

ENVIRONMENTAL SYSTEMS

J. M. Glennon (Assoc Dir of Continuing Ed) was appointed to the Accreditation Subcommittee, Education Committee of the American Water Works Association at the annual meeting in Denver, June 21-25.

J. H. Austin (Prof and Hd) directed a seminar for the staff of the Ontario Water Resources Commission in Toronto on the "Design of Educational Systems for Environmental Control Technicians" on July 13.

J. M. Glennon spoke to the participants in the Environmental Education Teach-In sponsored by the RPA. The subject of the presentation was the Certification and Education programs for Water and Wastewater treatment plant operators in South Carolina.

FOOD SCIENCE

A paper entitled "Textural Changes and Molecular Characteristics of Pectic Constituents in Ripening Peaches" by A. L. Shewfelt, V. A. Paynter and J. J. Jen (Asst Prof) was published in the May-June issue of the Journal of Food Science vol. 36, pp 573-575.

INDUSTRIAL MANAGEMENT

E. A. LaRoche (Assoc Prof) was reelected Secretary of the Textile and Needle Trades Division of the American Society for Quality Control for 1971-72.

Robert L. Brown (Adjunct Prof) received the rank of Fellow in the International Society for Advancement of Management at the Greenville Chapter meeting on May 10. Dr. Brown is also International Vice President of ISAM for Research and Development.

INTERDISCIPLINARY STUDIES

H. R. Bungay (Prof) presented a lecture to the department of Biomedical Engineering at Duke University on July 5.

M. J. Eitel (Assoc Prof) had a paper published in the May issue of the American Dyestuff Reporter entitled "Incineration of Flame Retardant Materials."

M. J. Eitel was an invited guest lecturer at a "Polymers and Materials Conference" at the University of Utah. The talk on July 3 was entitled "Actual Incineration Tests Involving Plastics."

MATHEMATICS

J. W. Kenelly (Prof and Hd) and W. R. Hare (Assoc Prof) have published an article entitled "Characterizations of Radon Partitions," in the Pacific Journal of Mathematics, Vol. 36, No. 1, pp. 159-164.

W. H. Ruckle (Assoc Prof) has published an article entitled "Diagonals of Operators," in Studia Math, 38 (1970), pp. 43-49.

PHYSICS

D. P. Miller (Assoc Prof) and L. A. Duvall (Grad Stu) will present a paper entitled, "The Crystal and Molecular Structures of the Simple Salt Adducts of pp'-diaminodiphenylbutane (DPB)" at the 1971 Summer American Crystallographic Association meeting at Ames, Iowa, Aug. 15-20.

D. P. Miller (Assoc Prof) and J. W. Swardstrom, Ph.D., Texadyne Corp. will present a paper entitled "The Crystal and Molecular Structure of Tris (4,4'-diaminodiphenylmethane). Sodium Chloride" at the American Crystallographic Association meeting at Ames, Iowa.

SOCIAL SCIENCES

W. C. Caple (Asst Prof) is co-author with G. T. Stewart (Tulane and Cornell Medical Schools) of "The Management of Drug Abuse in Aging Populations: New Orleans Findings," in The Journal of Drug Issues, Apr. 1971.

S. N. Cole (Assoc Prof) and Mildred Hunter (Anderson-Ocone-Pickens Mental Health Center) have published "Pattern Analysis of WISC Scores Achieved by Culturally Disadvantaged Children," in Psychological Reports, 1971.

TEXTILE DEPARTMENT

H. M. El-Behery (Assoc Prof) presented a paper entitled "Effect of Fiber Initial Modulus on its Migratory Behavior and Properties of Blended Yarns" at the Eighth Annual Synthetic Fiber Symposium of the Tidewater Virginia Section of the A.I.Ch.E., at Williamsburg, Va., on Apr. 24.

ZOOLOGY

E. D. Brodie, Jr. (Asst Prof) and Ronnie Howard (Grad Asst) presented a paper entitled, "Behavioral mimicry between the salamanders Notophthalmus and Pseudotriton," at the annual meeting of the American Society of Ichthyologists and Herpetologists in Los Angeles, Calif. on June 17.

E. D. Brodie, Jr. has received a grant from the Society of Sigma Xi for research on "Defensive behavior of salamanders of the genus Ambystoma."

CALENDAR OF CAMPUS EVENTS

Aug.	4	Wed.	Exams.
Aug.	5	Thurs.	Exams.
Aug.	5	Thurs.	Clemson University Agronomy Advisory Committee Meeting.
Aug.	6	Fri.	Clemson University Crop Variety Recommendation and Release Committee Meeting.
Aug.	7	Sat.	Graduation - Commissioning.
Aug.	13	Fri.	8:00 a.m. Faculty and Staff Orientation, P&AS Auditorium.
Aug.	14	Sat.	Individual College and/or School Orientation.
Aug.	16	Mon.	Orientation - new students.
Aug.	16	Mon.	10:30 a.m. General Faculty and Staff Meeting.

